KOZHANOV, M.G.; RASHEVICH, A.Ya.; KAZAKOV, A.I.; KULAKOV, A.M.

Washing the regenerator checkerwork of large-capacity open-hearth furnaces. Metallurg 6 no. 1:17-18 Ja '61. (MIRA 14:1)

1. Magnitogorskiy metallurgicheskiy kombinat.
(Open-hearth furnaces--Maintenance and repair)

VORONOV, F.D.; TRIFONOV, A.G.; KHUSID, S.Ye.; DIKSHTEYN, Ye.I.; VAL'PITER, E.V. SMEGIREV, Yu.B.; ANTIPIN, V.G.; Prinimali uchastiye: SMIRNOV, L.A.; KAZAKOV, A.I.; YELIZAROV, A.G.; KULAKOV, A.M.; KOZHANOV, M.G.; ZARZHITSKIY, Yu.A.; ARTAMONOV, M.P.; GOL'DENBERG, I.B.; ROMANOV, V.M.; NOVIKOV, S.M.; MAYEVSKIY, A.B.; DMITRIYEV, I.; MANZHULA, M.; BEREZOVOY, I.A.; ZUTS, K.A.; BADIN, S.N.; TATARINTSEV, G.; MITROFANOV, N.G.; GAVRILOVA, K.M.; IVANOV, N.I.

Operating a 400-ton open-hearth furnace on casing-head gas. Stal' 20 no. 7:594-598 Jl '60. (MIRA 14:5)
(Open-hearth furnaces--Equipment and supplies)

VORNOV, F.D.; BIGEYEV, A.M.; DIKSHTEYN, Ye.I.; TRIFONOV, A.G.; KAZAKOV, A.I.; KOROLEV, A.I.; BORODIN, G.L.; ANTIPIN, V.G.; KULAKOV, A.M.; KOZHANOV, M.G.; GAZHUR, V.F.

Investigating the operation of 400-ton open-hearth furnaces following redesign. Stal' 22 no.10:904-907 O'62. (MIRA 15:10)

1. Magnitogorskiy metallurgicheskiy kombinat i Magnitogorskiy gorno-metallurgicheskiy institut.
(Open-hearth furnaces)

VORONOV, F.D., prof.; D'YAKONOV, A.I., kand.tekhn.nauk; DIKSHTEYN, Ye.I., inzh.; TRIFONOV, A.G., inzh.; LORMAN, V.V., inzh.; KAZAKOV, A.I., inzh.; KOVALIK, I.S., tekhnik

Technological characteristics of Magnitogorsk Metallurgical Combine open-hearth furnace operations using compressed air in the fuel spray. Stal' 23 no.12:1088-1091 D '63. (MIRA 17:2)

1. Magnitogorskiy metallurgicheskiy kombinat i Magnitogorskiy gorno-metallurgicheskiy institut.

[redacted]

[redacted]AKOV, L.A.; KAZAKOV, A.K.; SHPAYKHER, V.I.

Vacuum unit for light annealing. Mashinostroitel' no.3:34 Mr '63. (MIRA 16:4)
(Titanium alloys—Heat treatment)

KAZAKOV, A. M.
Min Higher Education USSR. Moscow Mining Inst imeni I. V. Stalin.

KAZAKOV, A. M. - "Investigation of the operation of the drive system of the E-509 universal excavator." Min Higher Education USSR. Moscow Mining Inst imeni I. V. Stalin. Moscow, 1956.
(Dissertation for the Degree of Candidate in Technical Sciences.)

SO: Knizhnaya Letopis', No. 13, 1956

KAZAKOV, A.M., inzhener.

Water level conditions in the tailrace of hydroelectric power stations. Rech.transp. 15 no.1:18-19 Ja '56. (MLRA 9:5)
(Hydroelectric power stations)

KAZAKOV, A.M., inzh.

Refloating vessels by means of water released from hydroelectric power station reservoirs. Rech.transp. 16 no.9:20-22 S '57. (MIRA 10:12)

(Rivers--Regulation)

3(7) SOV/50-59-5-7/22

AUTHOR: Kazakov, A. M.

TITLE: Calculating the Characteristics of the Drain Wave (Raschet kharakteristik volny popuska)

PERIODICAL: Meteorologiya i gidrologiya, 1959, Nr 5, pp 37 - 39 (USSR)

ABSTRACT: The possibility of regulating the discharge of the river below the power station permits a number of production problems to be solved. Thus, artificial high tides can be produced in the critical points of time of low water. Such problems had already turned up in case of the River Kama, and they were solved by regulating the discharge from the Kama Power Station. At first, conditions had to be established which were suited to guarantee the demanded hydrological characteristics. An example is given here for such case where an artificial high tide was produced in September 1957. The Kama water basin had a rate of flow of only 450-600 m^3/sec at that time. Thanks to the reserves of the power station, a daily rate of 800 m^3/sec was delivered. In spite of this, a slow and steady decrease in the water level began on the section from the town of Perm' to the mouth of the River Belaya, i.e. 542 km. At that time, it became necessary to lift the water level for a short time at 450 km from the dam. The hypsometric station of Sarapul, 435 km from the dam, was chosen as

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a basic point for calculations. There, the level had to be lifted by 40 cm. The deliberations for solving this problem are put forward here. A consumption of 1200 m^3/sec was computed. On August 31, 1957, the Kama Power Station started the drain at 1200 m^3/sec. It lasted until September 2, 16 hours, when the consumption was reduced to 800 m^3/sec. The problem was solved. The difference between the calculated and the real values was only 4-6 cm. As had been anticipated, the maximum in Sarapul occurred on September 6. There are 1 figure and 1 table.

KAZAKOV, A.M., inzh.

Determining the level stages in the continuous-flow zone of the tailrace of the Perm Hydroelectric Station. Rech.transp. 18 no.1:34-36 Ja '59. (MIRA 12:2)

1. Kamskoye basseynovoye upravleniye puti.
(Hydraulics) (Perm Hydroelectric Power Station)

KAZAKOV, A.N., inzh.

Reconstruction of the Moskva River lock system; from Pererva to the mouth of the river. Gor. khoz. Mosk. 34 no.9:22-25 S '60. (MIRA 13:9)

(Moskva River--Locks (Hydraulic engineering))

5(4), 10(7) SOV/20-122-6-25/49

AUTHORS: Kogarko, S. M., Skobelkin, V. I., Kazakov, A. N.

TITLE: The Interaction Between Shock Waves and the Front of a Flame (Vzaimodeystviye udarnykh voln s frontom plameni)

PERIODICAL: Doklady Akademii nauk SSSR, 1958, Vol 122, Nr 6, pp 1046-1048 (USSR)

ABSTRACT: The present paper investigates the intensification of shock waves in their interaction with thefront of a flame by variation of the normal combustion process in the shock wave. The length of the shock wave is assumed to be sufficient in the direction of the reaction zone. For the interaction between such a shock wave and the flame front the following applies: 1) The shock wave is transformed at the flame front (like on the boundary dividing two media). In this way a refracted and a reflected wave are formed. The flame front can by approximation be considered to be a contact-discontinuity. The expressions for the refraction coefficient are written down. 2) When passing through the flame front the shock wave compresses the gas in the reaction zone, whereby temperature rises. This temperature rise increases reaction velocity, so

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The Interaction Between Shock Waves and the Front of a Flame

that the propagation velocity of the flame is also increased. This propagation velocity increases very rapidly, and therefore this process may be looked upon as a sort of explosion in the gas current behind the shock wave; it causes the formation of 2 additional (intensifying) shock waves. The shock wave front moves with subsonic velocity in relation to the disturbed gas, and therefore any kind of disturbance is able to catch up with this front in the current behind the shock front, thus changing its structure. The propagation velocity of the flame is not increased immediately upon arrival of the shock wave, but only after a certain relaxation time. The latter is of the same order of magnitude as the duration of reaction. A diagram schematically shows the intensification of the shock wave when passing through the flame front. Expressions for shock front calculation are given. The new propagation velocity of the flame is calculated according to the theory developed by Zel'dovich. The amplitude of the intensifying shock wave depends upon the amplitude of the initial shock wave as well as on the kinetic properties (reaction velocity, calorific value, activation energy, etc.) of the fuel. The second diagram shows the amplitude of the inten-

The Interaction Between Shock Waves and the Front of a Flame

sifying shock wave of compression in the reaction zone for 2 different propagation velocities. There are 2 figures and 5 Soviet references.

ASSOCIATION: Institut khimicheskoy fiziki Akademii nauk SSSR (Institute for Chemical Physics of the Academy of Sciences, USSR)

PRESENTED: June 21, 1958, by V. N. Kondrat'yev, Academician

SUBMITTED: June 11, 1958

KIZAKOV, A.N.

Geographical names of the Lovozero tundra on the Kola Peninsula. (MLRA 9:6)
Uch.zap.Len.un. no.124:297-313 '49.
(Lovozero Tundra--Names, Geographical)

KAZAKOV, A.N.

Names, Geographical - Murmansk Province

Characteristics and distribution of Lapp geographical names in the Murmansk Province, Izv. Vses. geog. obshch., 84, No. 4, 1952.

Monthly List of Russian Accessions, Library of Congress, October 1952, Unclassified.

KAZAKOV, A. N.

"Petrology of the Intrusives of the Northwestern Part of the Mansk Granite Field." Cand Geol-Min Sci, Leningrad State U, Leningrad, 1954. (RZhGeol, No 1, 1955)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (12)
SO: Sum. No. 556, 24 Jun 55

KAZAKOV, A.N.

Prevalence of positive microclines. Zap.Vses.min.ob-va 85 no.3: 433-434 '56. (MLRA 9:11)
(Microcline)

KAZAKOV, A.N.

VELIKOSLAVINSKIY, D.A.; KAZAKOV, A.N.; LOBACH-ZHUCHENKO, S.B.; MANUYLOVA, M.M.

Geology of the northeastern part of the Northern Baikal Highland. Trudy Lab. geol. dokem. no.7:120-230 '57. (MIRA 11:3)
(Northern Baikal Highland--Geology)

KAZAKOV, A.N.; SOKOLOV, Yu.M.

Geology of the Orkolikan series overburdening lower Proterozoic formations in the central part of the Northern Baikal Highland. Trudy Lab. geol. dokem. no.7:231-245 '57. (MIRA 11:3)
(Northern Baikal Highland--Rocks, Sedimentary)

KAZAKOV, A.N.

Pseudoconglomerates of the Mama complex (Northern Baikal Highland). Trudy Lab.geol dokem. no.9:336-356 '59. (MIRA 13:11)
(Mama Valley--Conglomerate)

KAZAKOV, A.N.

Structure of the Mama formation (Northern Baikal Highland). Trudy Lab. geol. dokem. no.11:43-52 '60. (MIRA 14:1)
(Northern Baikal Highland—Geology)

V...IKOSLAVINSKIY, D.A.; KAZAKOV, A.N.; GERLING, E.K.

Age of geological formations in the Northern Baikal Highland.
Trudy Lab.geol. dokem. no.12:281-290 '61. (MIRA 14:11)
(Northern Baikal Highland—Geological time)

VILENSKIY, A.M.; KAVARDIN, G.I.; [illegible], L.I.; [illegible], G.N.;
KAZAKOV, A.N., red.

[Petrology of trap intrusions on the right bank of the lower reaches of the Venisey River] Petrologiia trappovykh intruzii pravoberezh'ia nizhnego techeniia Eniseia. Mv.skva, Nauka, 1964. 236 p. (MIRA 17:9)

KALAKOV, A.N.

Microstructural orientation of olivine in the rocks of the supposedly upper mantle. Zap.Vses.min.ob-va 94 no.5:573-580 '65. (MIRA 18:11)

1. Leningradskiy otdel Vsesoyuznogo mineralogicheskogo obshchestva, Laboratoriya geologii dokembriya AN SSSR, Leningrad.

KAZAKOV, A. P.

Skorostnye metody obrabotki flota [Accelerated methods of servicing the fleet]. Moskva, Rechizdat, 1952. 27 p.

SO: Monthly List of Russian Accessions, vol. 6 No. 11 February 1954

KAZAKOV, Anatoliy Pavlovich; YEL'MEYEV, V.Ya., otv.red.; KORNEYEV, M.Ya., red.; VODOLAGINA, S.D., tekhn.red.

[Production of material wealth is the basic source of social development] Material'noe proizvodstvo - osnova obshchestvennogo razvitiia. Sost. A.P.Kazakov. Leningrad, 1957. 25 p. (MIRA 12:8)

1. Leningrad. Universitet. Otdel zaochnogo obucheniya. Kafedra dialekticheskogo materializma.
(Economics)

YEL'MEYEV, V.Ya., prepodavatel'; IVANOV-OMSKIY, I.I., prepodavatel'; KAZAKOV, A.P., prepodavatel'; NOVOZHILOVA, L.I., prepodavatel'; DROZDOV, A.V., prepodavatel'; KORNEYEV, M.Ya., prepodavatel'; BELYKH, A.K., prepodavatel'; YADOV, V.A., prepodavatel'; ROZHIN, V.P., prof., otv. red.; MIKHLIN, Ye.I., red.; VODOLAGINA, S.D., tekhn. red.

[Base and superstructure of a socialist society] Bazis i nadstroika sotsialisticheskogo obshchestva. Leningrad, Izd-vo Leningr. univ., 1961. 168 p. (MIRA 14:9)

1. Leningrad. Universitet. 2. Filosovskiy fakul'tet Leningradskogo gosudarstvennogo universiteta (for all except Rozhin, Mikhlin, Vodolagina)

(Economics)

SUKOLENOV, Aleksandr Yevdokimovich, kand. tekhn. nauk; MARFENIN, N.V., inzh. retsenzent; KAZAKOV, A.P., dots., kand. tekhn.nauk, retsenzent; RZHECHITSKIY, B.D., inzh., red.; MAKRUSHINA, A.N., red. izd-va; RIDNAYA, I.V., tekhn. red.

[Mechanization and organization of cargo-handling operations] Mekhanizatsiia i organizatsiia gruzovykh rabot. Moskva, Izd-vo "Rechnoi transport," 1963. 431 p. (MIRA 16:5)

1. Zaveduyushchiy kafedroy "Organizatsiya i mekhanizatsiya peregruzochnykh rabot" Gor'kovskogo instituta inzhenerov vodnogo transporta (for Kazakov).
(Cargo handling--Equipment and supplies)
(Inland water transportation--Management)

VAL'KOV, Grigoriy Petrovich. Prinimali uchastiye: KAZAKOV, A.P., kand. tekhn. nauk, dots.; GNOYAN, A.A., inzh.; MOROZOV, N.P., inzh.; ARTAMONYCHEV, A.N., kand. tekhn. nauk, retsenzent; MARFENIN, N.V., inzh., retsenzent; RZHECHITSKIY, B.D., red.; MAKRUSHINA, A.N., red.

[Organization of cargo handling; problems and examples] Organizatsiia gruzovykh rabot; zadachi i primery. Moskva, Transport, 1965. 299 p. (MIRA 18:6)

KAZAKOV, A.P., dotsent, kand. tekhn. nauk

Substantiation of the economic expediency of establishing cement storage centers in large transport terminals. Trudy GIIVT no.49:3-17 '63. (MIRA 18:6)

KAZAKOV, A.P. (Moskva); REIXAYEV, A.I. (Moskva); VIGDOROVICH, V.N. (Moskva)

Refining magnesium by zone melting. Izv. AN SSSR. Met. no.4:92-96 Jl-Ag '65. (MIRA 18:8)

L 01797-66 EWT(m)/EWP(t)/EWP(b) IJP(c) JD

ACCESSION NR: AP5021496 UR/0370/65/000/004/0092/0096
669.2/8.43

AUTHOR: Kazakov, A. P. (Moscow); Belyayev, A. I. (Moscow); Vigdorovich, V. N. (Moscow)

TITLE Purification of magnesium by zone refining

SOURCE: AN SSSR. Izvestiya. Metally, no. 4, 1965, 92-96

TOPIC TAGS: magnesium, metal zone refining, metal purification

ABSTRACT: Highly pure magnesium is needed more and more in atomic power engineering, semiconductor technology and other branches of science and technology. The authors examine the behavior of impurities in magnesium during purification by the zone refining method. The distribution factors for impurities in magnesium are briefly analyzed theoretically. The distribution of aluminum, copper, silicon and iron impurities in magnesium is studied experimentally. The zone refining was done at rates of 0.22, 0.35, 0.70 and 1.05 mm/min. The experimental setup is shown in fig. 1 of the Enclosure. The effective distribution factor of the impurities was studied as a function of the rate of motion of the melted zone (f) after various

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L 01797-66

ACCESSION NR: AP5021496

numbers of passes (n). The results of this study are given in table 1 of the Enclosure. Orig. art. has: 5 figures, 2 tables.

ASSOCIATION: none

SUBMITTED: 01Dec64 ENCL: 02 SUB CODE: MM

NO REF SOV: 002 OTHER: 010

Card 2/4

L 01797-66

ACCESSION NR: AP5021496

ENCLOSURE: 01

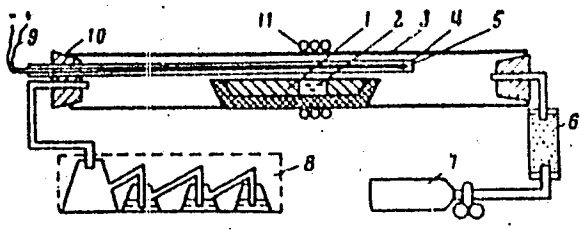

Fig. 1. Diagram of the experimental setup for zone refining of magnesium: 1--ingot; 2--melted zone; 3--quartz tube; 4--protective cover for the thermocouple; 5--thermocouple; 6--drier with silicagel; 7--tank with sulfur dioxide; 8--filter system; 9--thermocouple; 10--stopper; 11--heater

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L 01797-66

ENCLOSURE: 02

ACCESSION NR: AP5021496

TABLE 1

Effect of the rate of motion of the melted zone on the distribution of Al, Si and Cu impurities in magnesium after zone refining with various numbers of passes

f, mm/min	n	Impurity content ×10⁴ in various sections along the magnesium sample in mm.														
		Al					Si					Cu				
		10	45	80	115	150	10	45	80	115	150	10	45	80	115	150
0.22	2	25	25	30	35	51	<8	<8	<8	<8	10	2.0	4.8	6	7	110
	3	25	22	22	27	58	<8	<8	<8	9	10	<0.8	1.5	1.5	2.5	0.97
0.35	2	20	30	30	34	40	<8	<8	<8	24	100	2	5	9	21	132
	3	25	23	25	26	48	<8	<8	<8	<8	84	<0.8	1.0	2	9	170
0.70	2	36	41	38	38	49	<8	10	19	22	64	15	35	33	50	110
	3	32	34	35	38	58	<8	<8	9	14	92	.9	10	10	25	110
	4	30	34	31	36	60	<8	<8	8	11	87	1.0	2	4	9.1	150
1.05	3	37	34	37	40	46	10	21	30	39	120	5	20	32	71	110
	4	33	34	34	37	45	8	10	19	28	145	2	8	19	00	170

Card 4/4

L 28399-66 EWT(m)/EWA(d)/EWP(t)/ETI IJP(c) JD/HW/WB/HD

ACC NR: AT6013792 SOURCE CODE: UR/0000/65/000/000/0123/0135

AUTHOR: Mirolyubov, Ye. N. (Candidate of chemical sciences); Kazakov, A. P.; Kurtepov, A. P.

ORG: none

TITLE: Effect of chlorides on the corrosion resistance of stainless steels in nitric acid solutions

SOURCE: Korroziya metallov i splavov (Corrosion of metals and alloys), no. 2. Moscow, Izd-vo Metallurgiya, 1965, 123-135

TOPIC TAGS: chromium steel, nickel steel, stainless steel, corrosion resistance, nitric acid, test method/1Kh18N9T stainless Cr-Ni steel

ABSTRACT: Various corrosion tests were performed, each suited to the test objective: measurement of corrosion potentials as a function of time, and of corrosion as a function of the potential of the steel, with the aid of a hydrogen reference electrode. The potential measurements were based on the scheme: x mol HNO_3/KNO_3 (sat.)//KCl(sat), Hg_2Cl_2/Hg, with the chlorine ions being added to the solution in the form of NaCl. Findings: the addition of Cl^- ions to HNO_3 solutions causes the potential of stainless steels to shift from a passive state, characterized by a high corrosion resistance, to an active state at which their corrosion rate increases by several orders of magnitude. After some time, however, the corrosion process ceases and the steel returns to passive state. In this connection, the corrosion rate of stainless

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L 28399-66

ACC NR: AT6013792

steels is greatly affected by the test method. For example, it was established that, all other conditions remaining equal, the corrosion rate of 1Kh18N9T steel at 20°C increases with increasing ratio of the volume V of 3M H_2SO_4 solution (containing 10 g/liter NaCl) to the surface S of the specimens of this steel (length of experiments 20 hr); thus, for a V/S ratio (cm^3/cm^2) of 3.7 the corrosion rate K is 3.8 g/(m^2-hr), whereas for V/S = 70, K = 24.4 g/(m^2-hr). Corrosion rate also varies with time; thus, for 1Kh18N9T steel in 3M HNO_3 with 10 g/liter NaCl at 20°C and V/S = 7.5, K = 12.3 g/(m^2-hr) when test time τ = 1 hr, but K = 24.2 g/(m^2-hr) when τ = 4 hr and K = 2.9 g/(m^2-hr) when τ = 46 hr, and for $\tau >$ 46 hr the steel ultimately returns to passive state. Corrosion rate tends to increase with increasing V/S ratio as well as with decreasing distance from surface of specimen to surface of solution. Thus, when evaluating the effect of various factors on the corrosion rate of stainless steels in HNO_3 solutions with Cl^- ions, allowance must be made for the features of the test method selected, preferably selecting a test method that simulates best the presumed operating conditions. Generally, for stainless steels in HNO_3 solutions with chlorides in active state, the corrosion rate increases with increasing temperature and mixing rate of the solution and decreasing Ni content of the steel, and passes through a maximum when the concentrations of the acid and chloride and the Cr content of the steel are increased. Orig. art. has: 9 figures and 4 tables.

SUB CODE: 07,11 / SUBM DATE: 19Jul65/ ORIG REF: 012/ OTH REF: 003

Card 2/2

ACC NR: AP7002862 SOURCE CODE: UR/0149/66/000/006/0079/0085

AUTHORS: Kazakov, A. P.; Belyayev, A. I.; Vigdorovich, V. N.

ORG: Moscow Institute for Steel and Alloys, Department of Manufacture of Pure Metals and Semiconductor Materials (Moskovskiy institut stali i splavov. Kafedra proizvodstva chistykh metallov i poluprovodnikovykh materialov)

TITLE: Investigation of conditions for zone recrystallization of magnesium

SOURCE: IVUZ. Tsvetnaya metallurgiya, no. 6, 1966, 79-85

TOPIC TAGS: magnesium, copper, aluminum, silicon, metal recrystallization, metal purification, metal zone refining

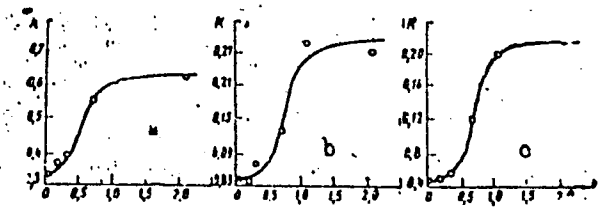
ABSTRACT: The conditions for zone recrystallization of magnesium were studied, supplementing the results of A. P. Kazakov, A. I. Belyayev, and V. N. Vigdorovich (Izv. AN SSSR, Metally, No. 4, 92, 1965). The experimental procedure followed is described by V. Dzh. Pfann (Zonnaya plavka. Metallurgizdat, 1960). The dependence of the effective distribution coefficients of Al, Cu, and Si impurities in zone-refined Mg was studied as a function of the recrystallization rate. The experimental results are presented in graphs and tables (see Fig. 1). The following relationship between the effective distribution coefficient K and the crystallization rate f was observed

$$\lg\left(\frac{1}{\kappa_{Al}-1}\right)=0{,}61\,f+0{,}363,$$

ACC NR: AF7002662

$$\lg\left(\frac{1}{\kappa_{Si}-1}\right)=0{,}977\,f+1{,}457,$$

$$\lg\left(\frac{1}{\kappa_{Cu}-1}\right)=0{,}801\,f+1{,}403.$$



Zone displacement, mm/min

Fig. 1. Dependence of effective distribution coefficients of Al (a), Si (b), and Cu (c) impurities in Mg on the zone displacement rate. The three points shown in the graph correspond to the experimental data of A. S. Yue and I. B. Clark (Trans AIME, v. 211, No. 6, 881, 1958)

The concentration dependence of the effective distribution coefficients of Al, Cu, and Si impurities was studied in the concentration range of 10^{-1} to 10^{-3}%, and the experimental results are tabulated. The rate of corrosion of zone-refined Mg was compared with that of distilled Mg. It was found that zone-refined Mg was identical in its corrosion behavior, with respect to HCl and KCl solutions, with that of fractionally distilled Mg. The experimental results are shown graphically. On the basis of the experimental results and literature data, a scheme is proposed for the classification of the effect of impurities on the purity of zone-refined Mg. Orig. art. has: 2 tables, 6 graphs, and 5 equations.

Card 2/2 SUB CODE: 11/ SUBM DATE: 080ct65/ ORIG REF: 005/ OTH REF: 002

L 29912-66 EWP(k)/EWT(m)/T/EWP(v)/EWP(t)/ETI IJP(c) JD/HM/HW

ACC NR: AF5027747 SOURCE CODE: UR/0137/65/000/008/E048/E048

38
B

AUTHOR: Kazakov, A. R.

TITLE: Peculiarities of the feeding sources for radio-frequency welding of thin-walled straight-seamed pipes.

SOURCE: Ref. zh. Metallurgiya, Abs. 8E337

REF SOURCE: Tr. Vses. n.-i. in-ta tokov vysokoy chastoty, vyp. 5, 1964, 51-65

TOPIC TAGS: welding technology, metal tube, generator, rectification, automatic electric device

ABSTRACT: For radio-frequency welding it is necessary to have special tube generators. In using generators for welding pipes made of Al, Ti, and other hard to weld metals, it is necessary to have a filter which would lower the frequency amplitude of the variable constituent of the rectified voltage to 1%; in welding low-carbon and low-alloy steels - to 4%. In addition to the existing protective devices of the relay and signalization it is best to arrange protection for the rectifiers, generator tube and the signalization indicating the irregularities in automation and control circuit, as well as the flash back. The relays must be quick-acting. M. Frolova

SUB CODE: 13 SUBM DATE: none

Card 1/1 UDC: 621.791.77:621.774.2

GLEYKH, Yu.Ye., inzh.; LAKERNIK, R.M., inzh.; KAZAKOV, A.R., inzh.; LUNIN, I.V., inzh.

Characteristics of radio-frequency welding of the aluminum covering of cables. Svar. proizv. no.8:20-22 Ag '63. (MIRA 17:1)

1. Zavod "Moskabel'" (for Lakernik). 2. Nauchno-issledovatel'skiy institut tokov vysokoy chastoty (for Lunin).

KAZAKOV, A.S.

SOV/136-58-5-5/22

AUTHORS: Bykhovskiy, Yu.A. and Polyakova, V.V , Bagdasarov, V.A., Kazakov, A.S. and Sarkisyan, A.M.

TITLE: Converter Automation, Utilisation of Converter Gases and Application of a Spectroscope Method for Controlling the Bessemerisation Process (Avtomatizatsiya konverterov, ispol'zovaniye konverternykh gazov i primeneniye spektral'nogo metoda kontrolya protsessa Bessemerovaniya)

PERIODICAL: Tsvetnyye Metally, 1958, 31, Nr 5, pp 28 - 34 (USSR)

ABSTRACT: At the Alaverdi Copper-chemical Combine, the productivity of converter operation and of the sulphuric-acid plant and converter campaign life were increased in 1957 by introducing automatic control and rapid analytical methods. The authors hope their description of the methods and their development will be useful to other combines. In addition to the authors, the following participated in the work: from the Alaverdi Combine - Sakhanskiy, Zarapov, Bezhanov, Arutyunyan, Davtyan, Kortava, Feofanov, Tumanyan and other; from Gintsvetmet - Rodionova, Kuznetsov and Olevanov; from the TsPKB of the Proyektmontazhavtomatika (now Giprotsvetmet) - Rozender, Averbukh and Finger; from Kavtsvetkontrol' - Dzodtsoyev, Kapysitskiy and Vishnevskiy. The authors

Cardl/3

Converter Automation, Utilisation of Converter Gases and Application of a Spectroscope Method for Controlling the Bessemerisation Process

describe first the automation of converters with details of the instruments and a circuit diagram (Figure 1). The component parts of the system are units for automatic regulation of gas pressure in the dust-catcher for automatic control of blast flow rate and pressure for protecting tuyeres from filling with liquid metal in the event of blast pressure falling below the safe value, for continuous temperature measurement in the converter (Figure 2) and a series of alarm signals. The spectroscopic analytical method adopted was developed after a special investigation in which the continuous flame spectrum was photographed and also studied visually. For determining the readiness of white matte, a pocket spectroscope is now used, the method being based on the appearance of two narrow lines (in the region 5400 and 5700 Å). For controlling the end of the bessemerisation process, the relation between the SO_2 content of the exit gases and the state of the process is used, observations being made with a steeloscope. The results

Converter Automation, Utilisation of Converter Gases and Application of a Spectroscope Method for Controlling the Bessemerisation Process

in 1957 of the adoption of automation of the combine were a 5-6% increase in converter heat weight, 7-8% decrease in duration, a converter campaign life increase up to 5 1/2 from 3 months, increase in sulphur-dioxide concentration to 6-8% and savings of materials and power; production of elementary sulphur also increased and the overall productivity of the converter shop rose by 15%.
There are 4 figures and 2 Soviet references.

ASSOCIATIONS: Gintsvetmet and Alaverdi[illegible] medno-khimicheskiy kombinat (Alaverdskiy Copper-chemical Combine)

Card 3/3

1. Furnaces--Control systems 2. Waste gases--Applications
3. Sulfuric acid--Production 4. Steel--Production
5. Spectrophotometers--Applications

1. A. T. KAZAKOV, M. A. KHRYSTOV, A. N. OLONTSEV

2. USSR (600)

4. Ball bearings

7. Speed-grinding operators of the ball shop at the First State Bearing Plant. Podshipnik no. 12. 1952.

9. Monthly List of Russian Accessions, Library of Congress, April 1953, Uncl.

KOSTIN, S.A., inzh.; KIRICHENKO, A.V., inzh.; KAZAKOV, A.T., inzh.

Laboratory studies of using compressed air in dewatering coal middlings which have already been coagulated. Nauch. trudy KuzNIIUgleobog. no.1:33-45 '62. (MIRA 16:8)
(Filters and filtration)

SITNIKOV, I.Ye.; KAZAKOV, A.T.

Efficiency of detonators. Gor.zhur. no.3:39-41 Mr '60.
(MIRA 14:5)

(Detonators) (Blasting)

KAZAKOV, Aleksey Tikhonovich; GLOTOV, O.K., red.; USHAKOVA, A.F., ved. red.; POLOSINA, A.S., tekhn. red.

[Blasting methods and techniques in seismic prospecting] Metodika i tekhnika vzryvnykh rabot pri seismorazvedke. Moskva, Gos. nauchno-tekhn.izd-vo neft.i gorno-toplivnoi lit-ry, 1961. 217 p. (MIRA 14:12)

(Seismic prospecting) (Blasting)

KOSTIN, S.A., inzh.; KAZAKOV, A.T., inzh.; KIRICHENKO, D.I., inzh.

Using polyacrylamide in laboratory and industrial studies on settling sludge and clarifying backwater at the Kirov preparation plant. Nauch. trudy KuzNIIUgleobog. no.1:62-72 '62. (MIRA 16:8)
(Kuznetsk Basin--Coal preparation) (Acrylamide)

AM4016113 BOOK EXPLOITATION S/

Kazakov, Aleksey Tikhanovich

Methods and techniques of blasting operations in seismic prospecting (Metodika i tekhnika vzryvnykh rabot pri seysmorazvedke), 2d ed., rev. and enl., Moscow, Gostoptekhizdat, 1963, 282 p., illus., biblio., 3,240 copies printed.

TOPIC TAGS: blasting, seismic prospecting, explosive, tetryl, trotyl, ammonite, hexogen, explosive storage, explosive transportation, boring, drill URB-2A, drill SBUD-150, drill UShB-16, drill URB-13, geophysics, geology

PURPOSE AND COVERAGE: This book gives brief information on seismic prospecting, geological strata and minerals, self-propelled drills, and methods of boring explosive charge pits. There is a detailed discussion of the fundamentals of the theory of explosives, the properties of explosives used in seismic prospecting, and the principles of setting an explosives charge. The general rules for blasting operations and the equipment used are described. The personnel required in blasting operations are outlined. There is a detailed presentation of the methods and techniques of blasting operations, blasting operations in natural water basins, the features of blasting operations on various surfaces and in the winter, blasting

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AM4016113

operations under complex meteorological conditions and at night. The methods and techniques are described considering the methodology of seismic observation, the quality of the seismogram, and the need to conserve resources. With respect to the conditions and requirements of seismic prospecting there is a detailed treatment of: the organization, conduct of blasting operations, short-time storage of explosives, transportation and use of explosives. The book gives attention to the basic rules of safety arising from the theory and practice of blasting in seismic prospecting considering the "Uniform Rules of Safety in Blasting Operations". The book is intended for specialists of the geophysical organizations conducting blasting operations and is a practical guide for seismic prospecting expeditions and parties. It can also serve as a text for preparing qualified cadres of blasters and blasting foremen in seismic prospecting.

TABLE OF CONTENTS [abridged]:

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44338

S/024/62/000/006/006/020
E140/E135

AUTHOR: Kazakov, I.Ye. (Moscow)

TITLE: On the statistical theory of continuous self-adjusting systems

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Otdeleniye tekhnicheskikh nauk. Energetika i avtomatika, no.6, 1962, 76-81

TEXT: The author studies the gradient type of self-adjusting continuous system, in a variant previously studied by M. Margolis and C.T. Leondes (A parameter tracking servo for control systems, Trans. IRE, AC-4, no.2, 1959), in which probing or test steps are not required. The method requires prior knowledge of the structures of the process and of the control system. It is shown in the paper that although the auxiliary operators of the system are determined by the process and system and should ideally be altered at each change of parameters of the latter, in practice they can be given arbitrarily in a wide range without adverse effect on the system dynamics. There is 1 figure.

Card 1/1 SUBMITTED: May 23, 1962

S/138/62/000/012/007/010
A051/A126

AUTHORS: Gamburg, D. Yu., Kazakov, A. V., Lelyakina, T. M., Belugina, L. N., Veselovskiy, K. B.

TITLE: Investigation of carbon black produced by electro-cracking of natural gas to acetylene

PERIODICAL: Kauchuk i rezina, no. 12, 1962, 22 - 24

TEXT: Samples of acetylene carbon blacks, obtained from dry collection and produced in one of the electro-cracking plants, were studied in 1959 - 1960 by the ГИАП (GIAP - State Institute of Scientific Research and Design of the Nitrogen Industry and Products of Organic Synthesis), in cooperation with НИИРП (NIIRP - Scientific Research Institute of the Rubber Industry). Investigations were conducted to determine the possible use of these samples as fillers in rubber mixes. The major disadvantages of the investigated carbon blacks were found to be: the high volumetric numbers, elevated ash content and a low density which in some cases not exceeded 40 - 50 g/l. Work has been carried out to increase the density by 3 to 4 times and reduce the volumetric number from 34

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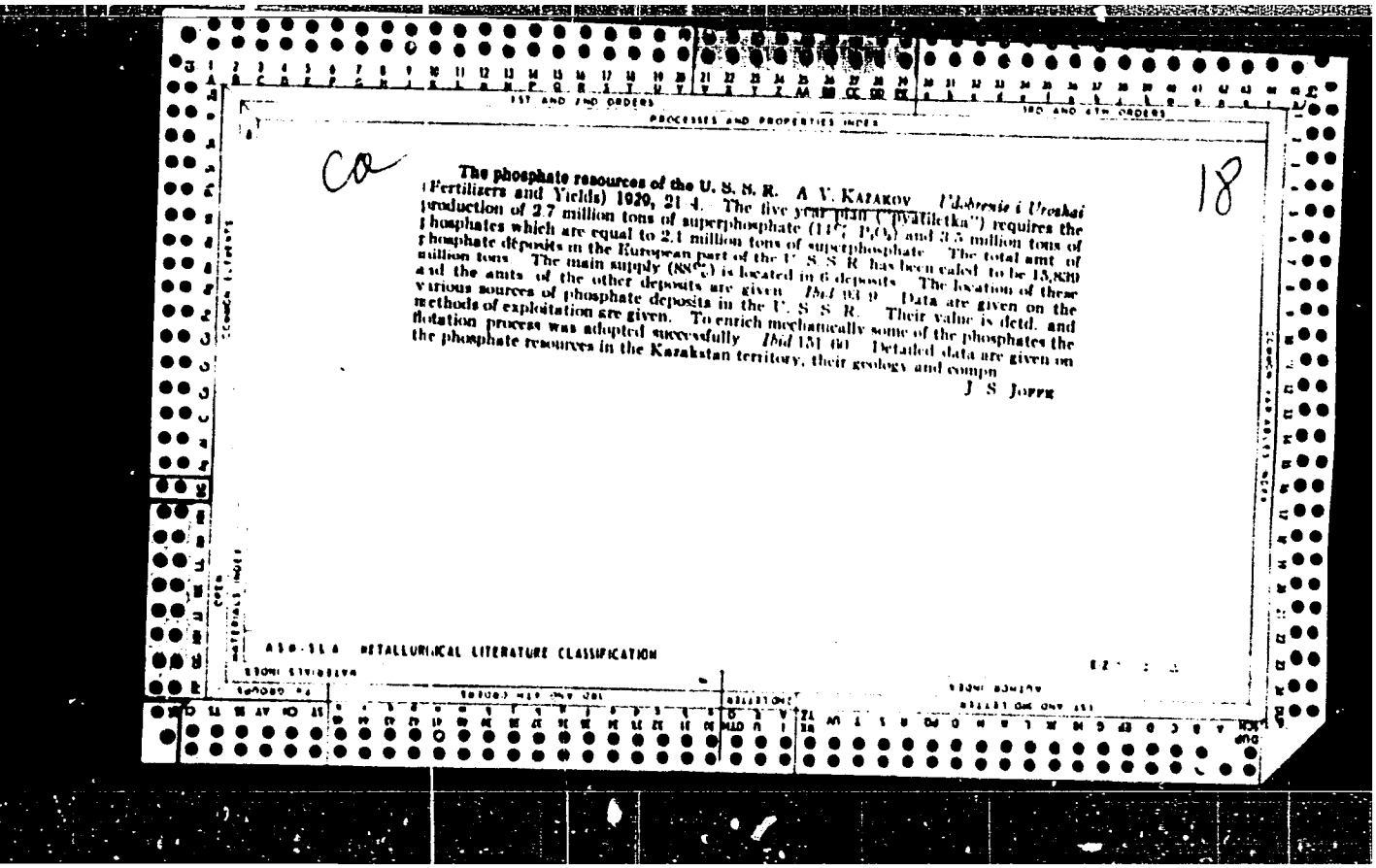
to 5.9 cm^3/g. The ash content could also be reduced by regulating the production process through gas annealing with vapour condensate. Finally, the elevated content of volatile substances could also be reduced with an increase in annealing temperature. The advantages of the methane electro-cracking carbon black are: the high tensile strength, hardness according to TM-2 (TM-2), increased tear resistance exceeding the standard acetylene carbon black in this respect. It was experimentally established that with the properly adjusted carbon-black production process from gases of methane electro-cracking, carbon black compression, and its granulation, a stable product is formed which is not inferior to standard acetylene carbon black [П-1250 (P-1250)], and carbon black from methane electro-cracking produced at present in the GFR. The investigated carbon black gives the same properties to the rubber mixes as the latter two. There are 2 tables.

ASSOCIATION: Gosudarstvennyy nauchno-issledovatel'skiy proyektnyy institut azotnoy promyshlennosti i produktov organicheskogo sinteza i Nauchno-issledovatel'skiy institut rezinovoy promyshlennosti (State Institute of Scientific Research and Design of the Nitrogen Industry and Products of Organic Synthesis and Scientific Research Institute of the Rubber Industry)



1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

3RD AND 4TH ORDERS

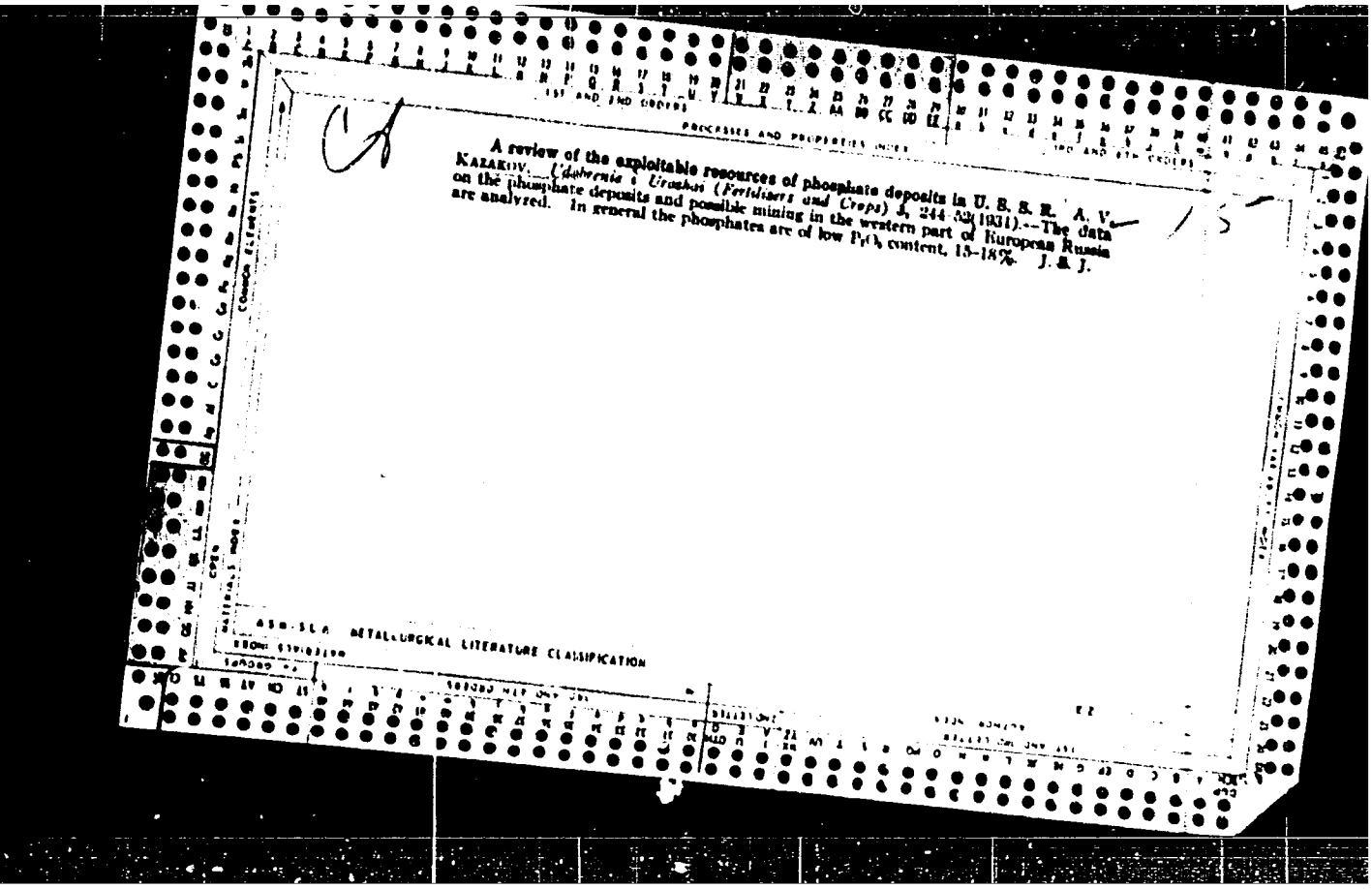
Co

18

The phosphate resources of the U. S. S. R. A. V. KAPAKOV. *Udobreniia i Urozhai* (Fertilizers and Yields) **1939**, 21 4. The five year plan ("Piatiletka") requires the production of 2.7 million tons of superphosphate (14% P_2O_5) and 3.5 million tons of phosphates which are equal to 2.1 million tons of superphosphate. The total amt. of phosphate deposits in the European part of the U. S. S. R. has been calcd. to be 15,830 million tons. The main supply (88%) is located in 6 deposits. The location of these and the amts. of the other deposits are given. *Ibid* 93 9. Data are given on the various sources of phosphate deposits in the U. S. S. R. Their value is dctd. and methods of exploitation are given. To enrich mechanically some of the phosphates the flotation process was adopted successfully. *Ibid* 151 60. Detailed data are given on the phosphate resources in the Kazakstan territory, their geology and compn.

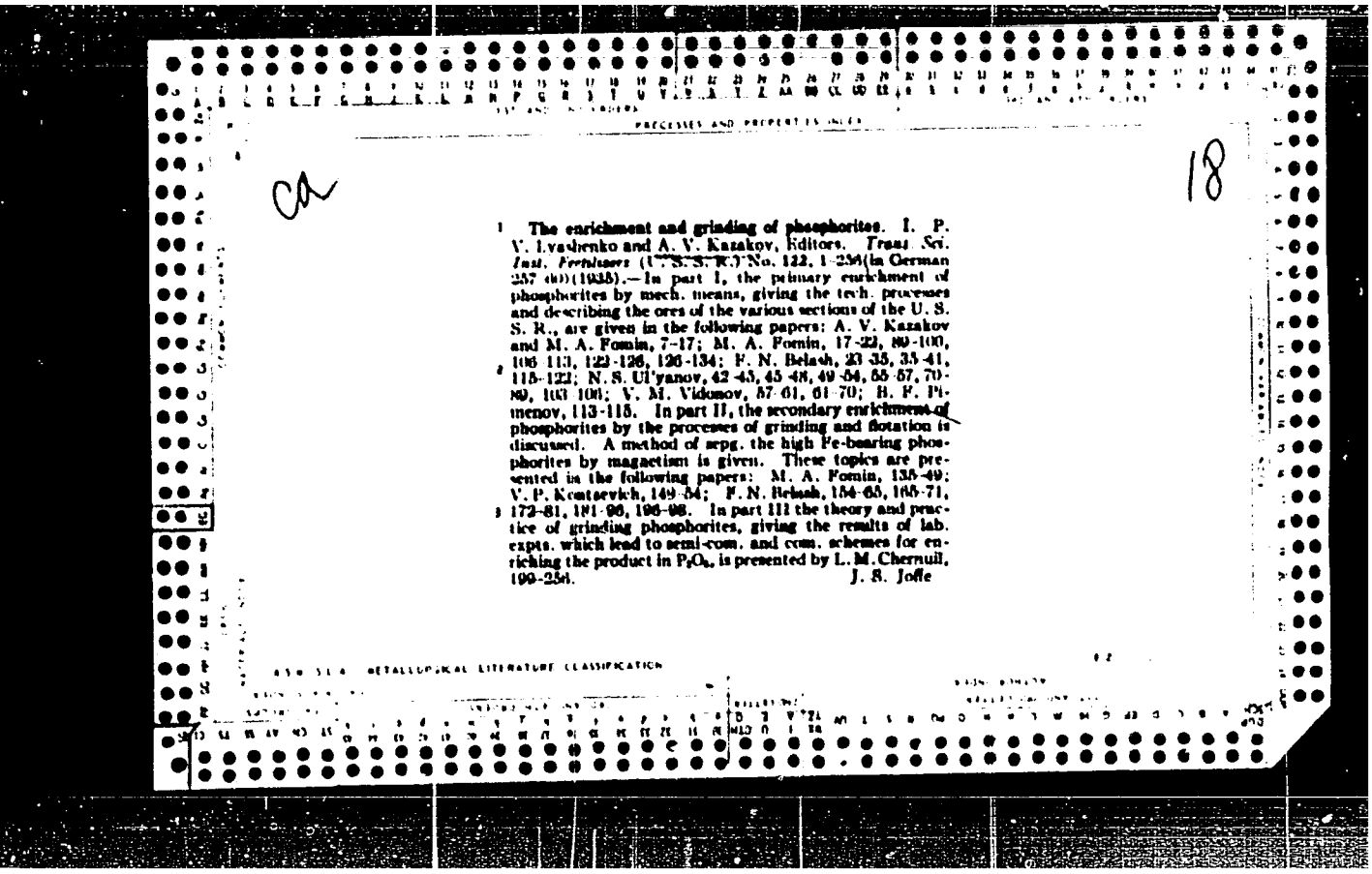
J. S. JOFFE

A50-51A METALLURGICAL LITERATURE CLASSIFICATION



A review of the exploitable resources of phosphate deposits in U. S. S. R. A. V. KAZAKOV. *Udobreniia i Urozhai* (*Fertilizers and Crops*) 5, 244-52(1931).--The data on the phosphate deposits and possible mining in the western part of European Russia are analyzed. In general the phosphates are of low P_2O_5 content, 15-18%. J. S. J.

METALLURGICAL LITERATURE CLASSIFICATION

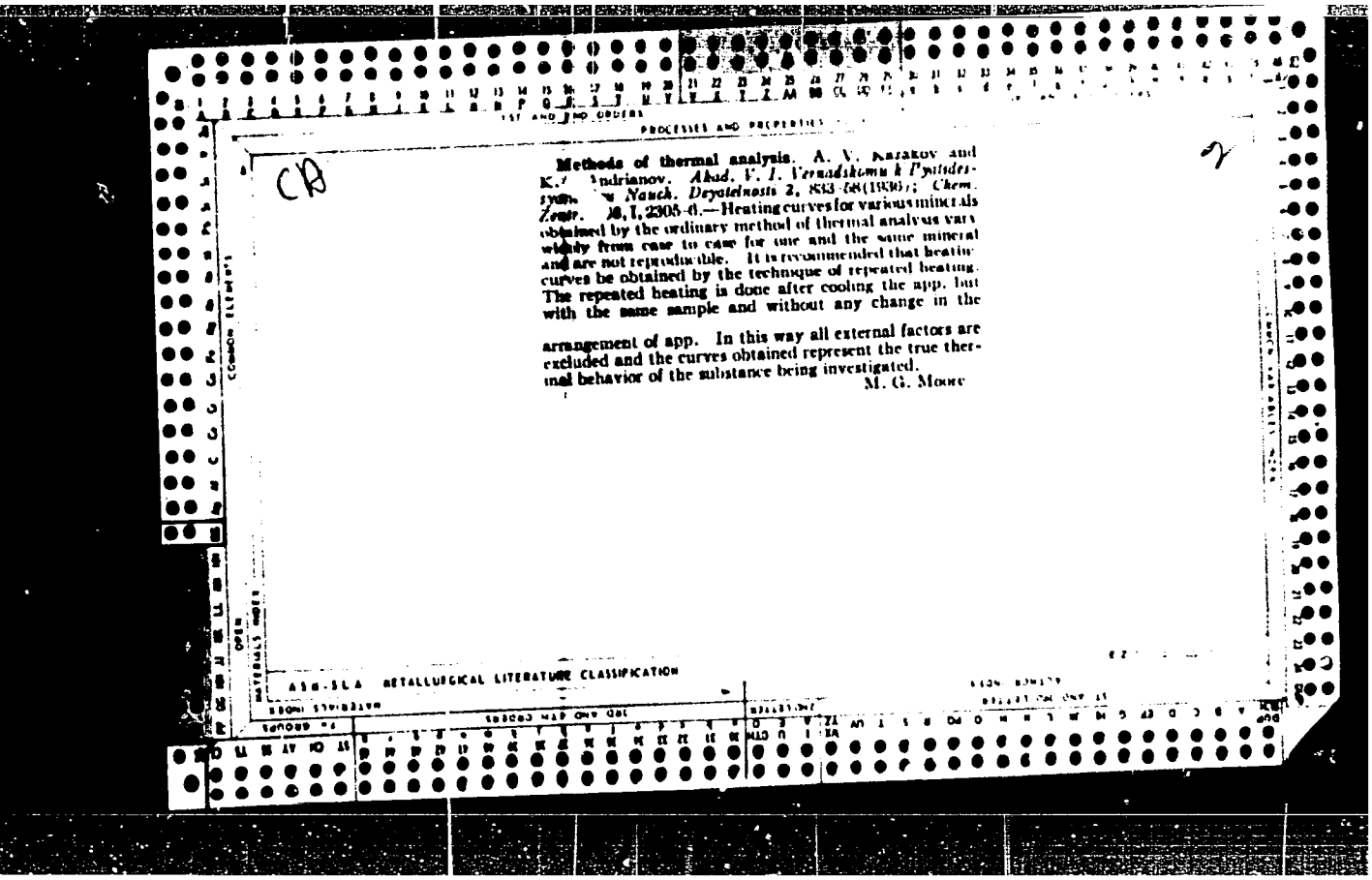


CA

18

1 **The enrichment and grinding of phosphorites.** I. P. V. Lyashenko and A. V. Kazakov, Editors. *Trans. Sci. Inst. Fertilizers* (U. S. S. R.) No. 122, 1-256 (in German 257-60) (1935).—In part I, the primary enrichment of phosphorites by mech. means, giving the tech. processes and describing the ores of the various sections of the U. S. S. R., are given in the following papers: A. V. Kazakov and M. A. Fomin, 7-17; M. A. Fomin, 17-22, 89-100, 106-113, 123-126, 126-134; F. N. Belash, 23-35, 35-41, 115-122; N. S. Ul'yanov, 42-45, 45-48, 49-54, 55-57, 70-89, 103-106; V. M. Vidunov, 57-61, 61-70; B. F. Pimenov, 113-115. In part II, the secondary enrichment of phosphorites by the processes of grinding and flotation is discussed. A method of sepg. the high Fe-bearing phosphorites by magnetism is given. These topics are presented in the following papers: M. A. Fomin, 135-49; V. P. Krentsevich, 149-54; F. N. Belash, 154-65, 165-71, 172-81, 181-96, 196-98. In part III the theory and practice of grinding phosphorites, giving the results of lab. expts. which lead to semi-com. and com. schemes for enriching the product in P_2O_5, is presented by L. M. Chernuil, 199-256.

J. S. Joffe



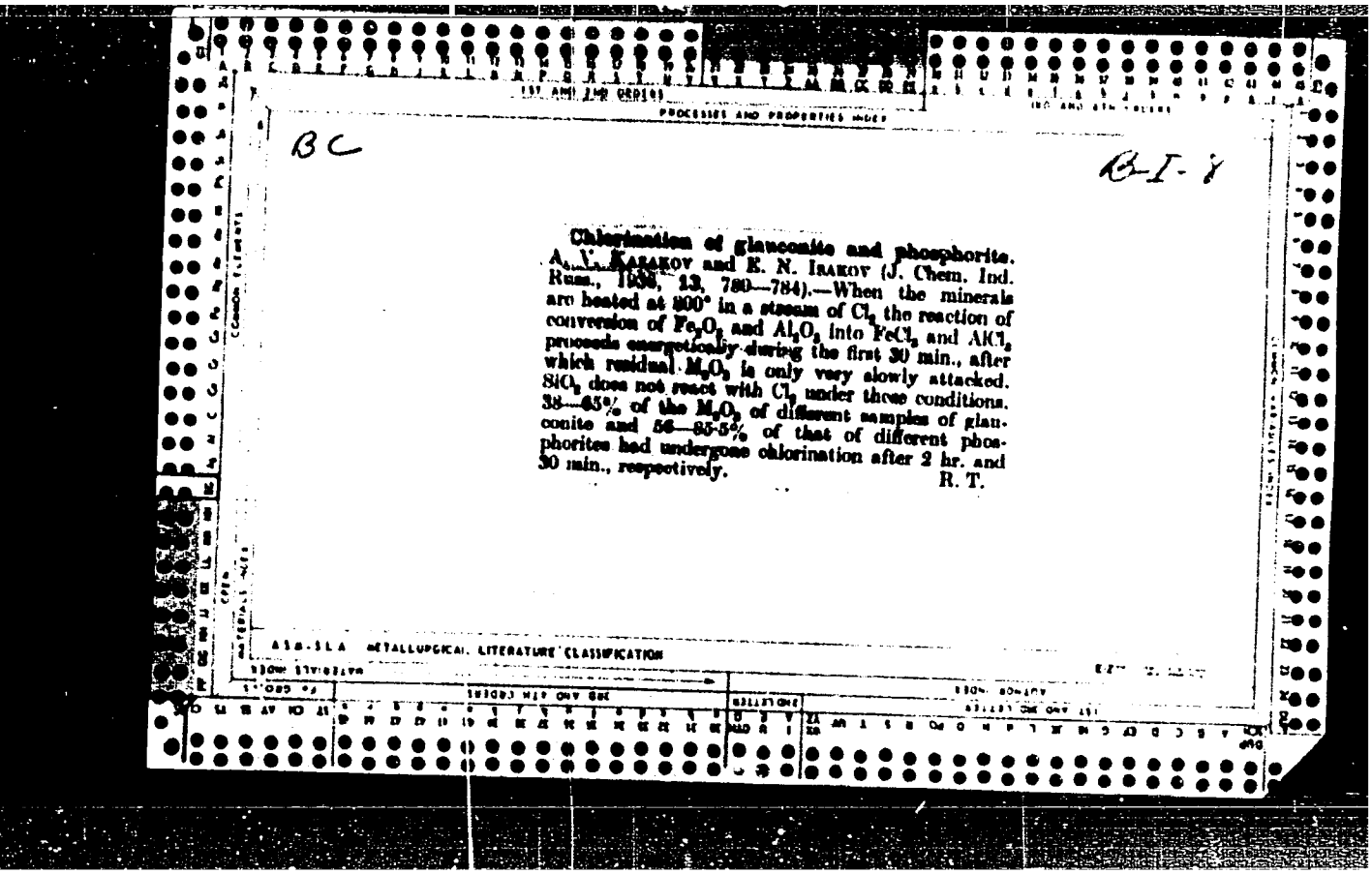
PROCESSES AND PROPERTIES

CB

Methods of thermal analysis. A. V. Nazakov and K. [illegible] Andrianov. *Akad. V. I. Vernadskomu k Pyatidesyatiletiyu Nauch. Deyatelnosti* 2, 853-68(1930); *Chem. Zentr.* 30,I,2305-6.—Heating curves for various minerals obtained by the ordinary method of thermal analysis vary widely from case to case for one and the same mineral and are not reproducible. It is recommended that heating curves be obtained by the technique of repeated heating. The repeated heating is done after cooling the app. but with the same sample and without any change in the arrangement of app. In this way all external factors are excluded and the curves obtained represent the true thermal behavior of the substance being investigated.

M. G. Moore

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



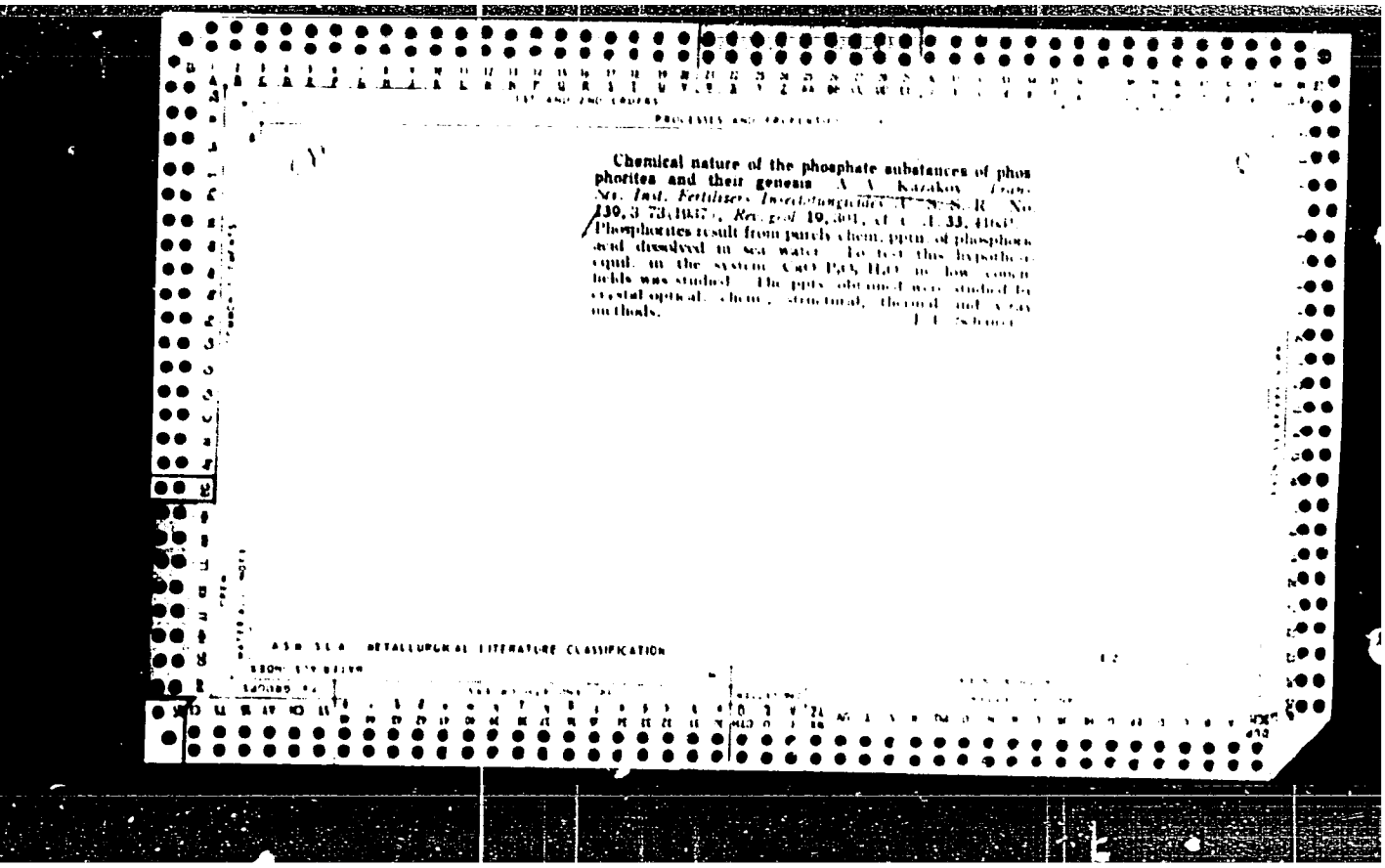
BC

B-I-8

Chlorination of glauconite and phosphorite. A. V. KARAKOV and E. N. ISAKOV (J. Chem. Ind. Russ., 1936, 13, 780—784).—When the minerals are heated at 800° in a stream of Cl_2 the reaction of conversion of Fe_2O_3 and Al_2O_3 into $FeCl_3$ and $AlCl_3$ proceeds energetically during the first 30 min., after which residual M_2O_3 is only very slowly attacked. SiO_2 does not react with Cl_2 under these conditions. 38—63% of the M_2O_3 of different samples of glauconite and 56—85·5% of that of different phosphorites had undergone chlorination after 2 hr. and 30 min., respectively.

R. T.

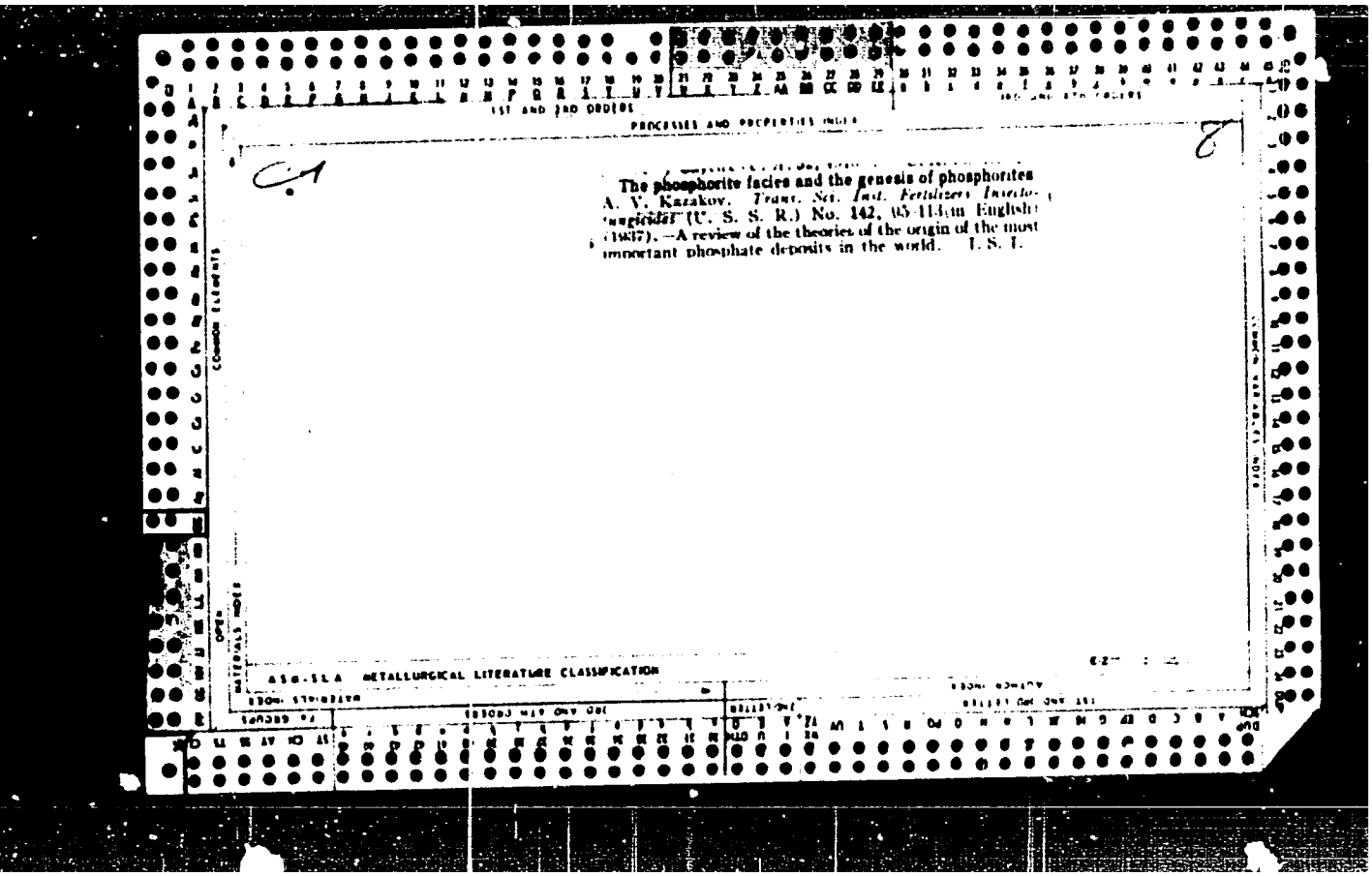
A.S.M.-S.L.A. METALLURGICAL LITERATURE CLASSIFICATION



Chemical nature of the phosphate substances of phosphorites and their genesis A. V. Kazakov. *Trans. Sci. Inst. Fertilizers Insektofungicides* [illegible] U.S.S.R. No. 130, 3–73 (1937); *Referat. Zhur. Khim.* 19, 301; *Chem. Abs.* 33, 4163. Phosphorites result from purely chem. ppn. of phosphoric acid dissolved in sea water. To test this hypothesis equil. in the system CaO–P_2O_5–H_2O at low concn. fields was studied. The ppts. obtained were studied by crystal optical, chem., structural, thermal and x-ray methods.

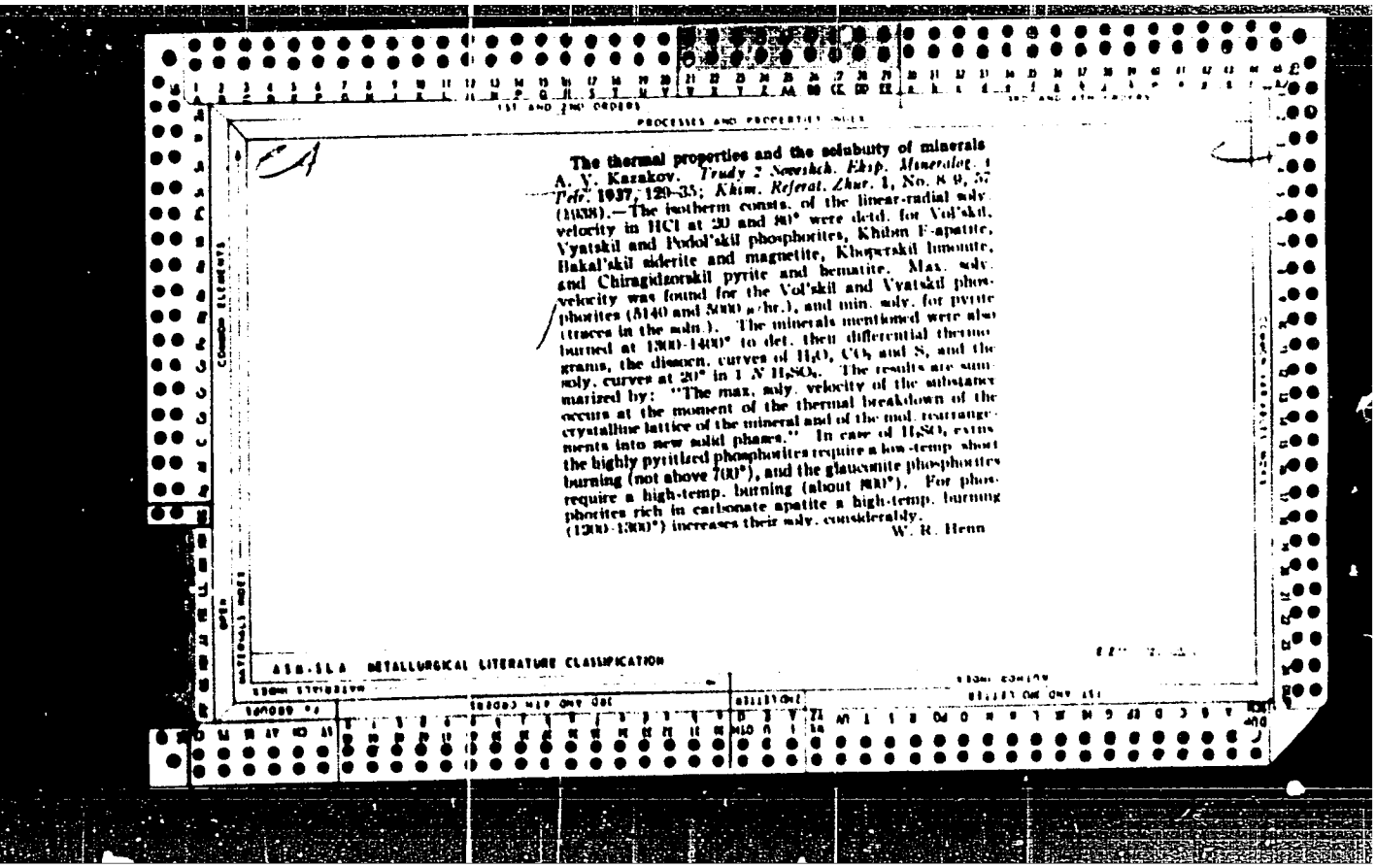
J. L. Schmitt

A.S.M. S.L.A. METALLURGICAL LITERATURE CLASSIFICATION

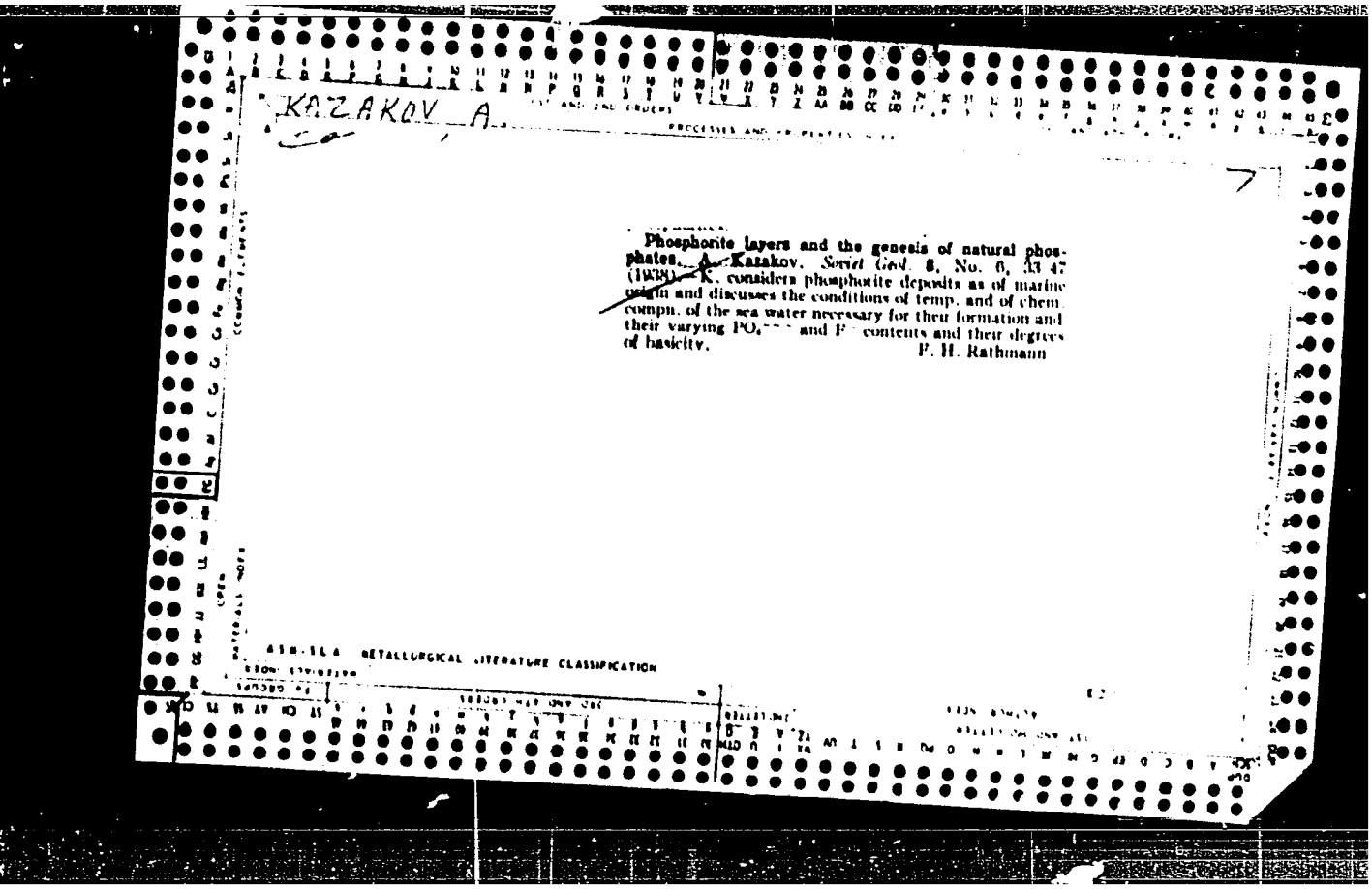


The phosphorite facies and the genesis of phosphorites
A. V. Kazakov. *Trans. Sci. Inst. Fertilizers Insecto-fungicides* (U. S. S. R.) No. 142, 95-113 (in English) (1937). —A review of the theories of the origin of the most important phosphate deposits in the world. I. S. I.

A56-51A METALLURGICAL LITERATURE CLASSIFICATION



The thermal properties and the solubility of minerals
A. V. Kazakov. *Trudy 2 Soveshch. Eksp. Mineralog. i Petr.* 1937, 129–35; *Khim. Referat. Zhur.* 1, No. 8 9, 57 (1938).—The isotherm consts. of the linear-radial soly. velocity in HCl at 20 and 80° were detd. for Vol'skil, Vyatskil and Podol'skil phosphorites, Khibin F-apatite, Bakal'skil siderite and magnetite, Kheperskil limonite, and Chiragidzorskil pyrite and hematite. Max. soly. velocity was found for the Vol'skil and Vyatskil phosphorites (5140 and 5000 μ/hr.), and min. soly. for pyrite (traces in the soln.). The minerals mentioned were also burned at 1300–1400° to det. their differential thermograms, the dissocn. curves of H_2O, CO_2 and S, and the soly. curves at 20° in 1 *N* H_2SO_4. The results are summarized by: "The max. soly. velocity of the substance occurs at the moment of the thermal breakdown of the crystalline lattice of the mineral and of the mol. rearrangements into new solid phases." In case of H_2SO_4, extns. the highly pyritized phosphorites require a low-temp. short burning (not above 700°), and the glauconite phosphorites require a high-temp. burning (about 900°). For phosphorites rich in carbonate apatite a high-temp. burning (1200–1300°) increases their soly. considerably.
W. R. Henn



KAZAKOV A

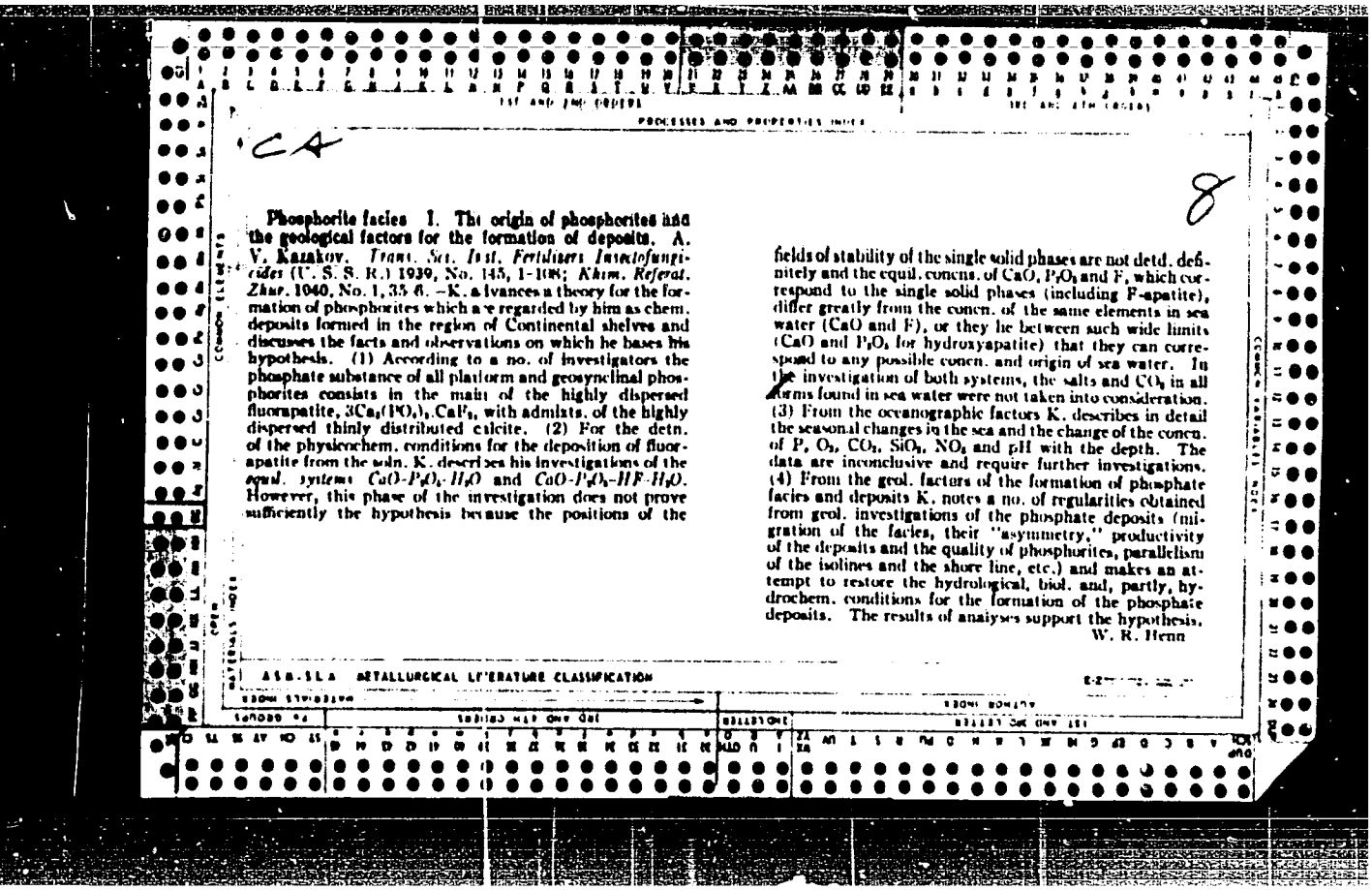
Phosphorite layers and the genesis of natural phosphates. A. Kazakov. *Soviet Geol.* 8, No. 6, 33-47 (1938).—K. considers phosphorite deposits as of marine origin and discusses the conditions of temp. and of chem. compn. of the sea water necessary for their formation and their varying PO_4^{---} and F^- contents and their degrees of basicity.

P. H. Rathmann

A58-51A METALLURGICAL LITERATURE CLASSIFICATION

Lithology and the processes of weathering of the phosphate seams of the Egor'yevsk group of [illegible]posits. A. V. Karakov. *Trans. Sci. Inst. Fertilizers Insectofungicides* (U.S.S.R.) No. 140, 128 (6 [illegible] English, 1[illegible]) (1938). K. traces the phosphate deposits transformations during 2 stages of weathering. In the first stage $CaCO_3$ is lost and the Ca phosphate is gradually dissolved and removed; SiO_2 is displaced by phosphate; gel-like deposits of green "neoglauconite" form. In the second stage of weathering, which takes place in a situation above the ground waters, disintegration of glauconite, neoglauconite, [illegible] and pyrite with the formation of limonite, [illegible] and opal is observed. P, Ca and the alkali metal are removed by the percolating waters. J. S. Joffe

METALLURGICAL LITERATURE CLASSIFICATION



CA

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Phosphorite facies 1. The origin of phosphorites and the geological factors for the formation of deposits. A. V. Kazakov. *Trans. Sci. Inst. Fertilizers Insectofungicides* (U. S. S. R.) 1939, No. 145, 1-108; *Khim. Referat. Zhur.* 1940, No. 1, 35-6.—K. advances a theory for the formation of phosphorites which are regarded by him as chem. deposits formed in the region of Continental shelves and discusses the facts and observations on which he bases his hypothesis. (1) According to a no. of investigators the phosphate substance of all platform and geosynclinal phosphorites consists in the main of the highly dispersed fluorapatite, $3Ca_3(PO_4)_2.CaF_2$, with admixts. of the highly dispersed thinly distributed calcite. (2) For the detn. of the physicochem. conditions for the deposition of fluorapatite from the soln. K. describes his investigations of the *equil. systems* $CaO-P_2O_5-H_2O$ and $CaO-P_2O_5-HF-H_2O$. However, this phase of the investigation does not prove sufficiently the hypothesis because the positions of the fields of stability of the single solid phases are not detd. definitely and the equil. concns. of CaO, P_2O_5 and F, which correspond to the single solid phases (including F-apatite), differ greatly from the concn. of the same elements in sea water (CaO and F), or they lie between such wide limits (CaO and P_2O_5 for hydroxyapatite) that they can correspond to any possible concn. and origin of sea water. In the investigation of both systems, the salts and CO_2 in all forms found in sea water were not taken into consideration. (3) From the oceanographic factors K. describes in detail the seasonal changes in the sea and the change of the concn. of P, O_2, CO_2, SiO_2, NO_3 and pH with the depth. The data are inconclusive and require further investigations. (4) From the geol. factors of the formation of phosphate facies and deposits K. notes a no. of regularities obtained from geol. investigations of the phosphate deposits (migration of the facies, their "asymmetry," productivity of the deposits and the quality of phosphorites, parallelism of the isolines and the shore line, etc.) and makes an attempt to restore the hydrological, biol. and, partly, hydrochem. conditions for the formation of the phosphate deposits. The results of analyses support the hypothesis.

W. R. Henn

KAZAKOV, A. V.

168T41

USSR/Geology - Phosphate Rocks Sep/Oct 50

"Geotectonics and Formation of Phosphate Rock Deposits
A. V. Kazakov

"Iz Ak Nauk SSSR, Ser Geol" No 5, pp 42-69

Conclusions on geographic distribution of phosphate rock deposits based on two geologicogenetic regularities. For first time proves and experimentally confirms formation of phosphate rocks as chemical marine deposits from deep ocean waters during transgression on continent. Studies Mesozoic of Russian platform and other areas to show that all phosphate rock deposits of [illegible] industrial importance are in regions of geotectonic depressions.

168T41

KAZAKOV, A.V.

5212

THE FLUORAPATITE SYSTEM OF EQUILIBRIA IN THE CONDITIONS OF FORMATION OF SEDIMENTARY ROCKS. A. V. Kazakov. Translated by V. L. Skitsky from Trudy Inst. Geol. Nauk, Akad. Nauk S.S.S.R. No. 114, Geol. Ser. No. 40, 1-31(1950). 31p. (TEI-385)

As part of unified research on the behavior of the fluoride ion in sedimentary rocks, the present study deals with the system $CaO-P_2O_5-HF-H_2O$ at 25°C, under conditions of sea sedimentation. The precipitated phases, their fields of crystallization and stability, the fluorine-phosphorus coefficient, and the isomorphism of fluorhydroxyl ions in the apatite lattice are considered and illustrated by orthogonal projections. The results lead to conclusions on fluorapatite sedimentation on phosphate shelves, with its consequent fixation of fluorine, expressed in the form of an average annual balance sheet for the processes involved. (V.L.S.)

KAZAKOV, A.V.

8213

CONDITIONS OF THE FORMATION OF FLUORITE IN SEDIMENTARY ROCKS. (THE FLUORITE SYSTEM). A. V. Kazakov and E. I. Sokolova. Translated by V. L. Skitsky from Trudy Inst. Geol. Nauk, Akad. Nauk S.S.S.R. No. 114, Geol. Ser. No. 40, 22-64(1950). 76p. (TEI-328)

The formation of fluorite in sedimentary rocks has been investigated by studies of fluorite equilibria in different solutions. Determinations at different temperatures were made on the solubility of crystalline CaF_2 in chemically pure water, in aqueous solutions of components of sea water — $CaSO_4$, NaCl, Na_2SO_4, and $MgSO_4$ — at different concentrations, and in the sea water itself at degrees of salinity varying from normal to a 25-fold concentration. Conclusions are reached on the effects of the various salts and on the consequent possibilities of fluorite precipitation in basins of different types. Facies conditions of fluorapatite and fluorite deposition are derived for successive states of evaporation of saline basins, and the use of the fluorine-phosphorus coefficient as a facies index is suggested. Literature is reviewed. (V.L.S.)

Kazakov A.V.

The system ferrous oxide-carbon dioxide-water and conditions of the paragenesis of siderites and phosphorites. A. V. Kazakov, M. M. Tikhomirova, and V. I. Plotnikova. *Trudy Inst. Geol. Nauk Akad. Nauk S.S.S.R.* No. 152, *Geol. Ser.* No. 64, 59-71(1957).—The system FeO-CO_2-H_2O at 19 ± 1° was studied; an equil. diagram is drawn. Synthetic spherulitic siderite ($FeCO_3$) is obtained in a closed O-free system. The siderite system approaches equil. at pH 6.2–7. The oxidation-reduction potential varies from +122.8 to +240. Since the pH values found are substantially lower than during the formation of phosphorites (pH 8–8.5), both cannot be stable or be formed at the same time. The oxidation-reduction potential of the siderite system in natural conditions is also considerably lower (< −10 mv.) than the potential of sea water during phosphorite pptn. (+400 mv.). O is absent in the siderite system but present in sea waters. Therefore siderite formation in the phosphorites should be regarded as a diagenetic process resulting from reducing conditions produced by biochem. decay of org. material. A lithologic facies analysis of marine siderite-phosphorite deposits of the Eastern slopes of Ural is given, and the siderite-phosphorite "paragenesis" petrographically is described. These minerals are not syngenetic. A. Volborth.

Distr: 4R4

KAZAKOV, A. V.

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Carbonate equilibrium system (dolomite, magnesite). [illegible], M. M. Tikhomirova, and V. I. Plotnikova. *Trudy Inst. Geol. Nauk, Akad. Nauk S.S.S.R.* No. 152, *Geol. Ser.* No. 64, 13-58(1957).—As a [illegible] study of the formation of magnesite and dolomite in the systems $MgO-CO_2-H_2O$ and $CaO-MgO-CO_2-H_2O$ at 20° and partly at 60 and 150°. The systems are made more complex by adding other components, such as NaCl, $MgSO_4$, gypsum, and other constituents of sea water. For the 20° isotherm, the method used is crystn., not soln. of natural carbonates. Because of high metastability of the system and slow re-establishment of equil., 2 months to a yr. had to be allowed for the pptn. The main effort was to establish conditions for crystn. of $MgCO_3$. In the magnesite system, high, medium, and low CO_2 concns. were studied. The nesquehonite ($MgCO_3 \cdot 3H_2O$) field or the field of high CO_2 concns. (2000-19,000 mg./l. CO_2) is studied, the liquid and solid phases being analyzed after pptn. time of 60-330 days at 20°. The authors show that earlier data by Kline (*C.A.* 23, 4396) who assumed that equil. was reached in 3-5 days are erroneous; 50 to 100 days are necessary. The binary point for nesquehonite lies at considerably higher CO_2 and MgO concns. than is shown on Kline's curve. The paragenesis of brucite and nesquehonite is nonexistent, since Kline did not take into account the presence of basic Mg carbonates in the intermediate phase between brucite and nesquehonite. Phys., *d*-spacing and differential thermal analysis (DTA) data on nesquehonite, and DTA curves of lansfordite, hydromagnesite and artinite are also given. In the low CO_2-concn. field 0-270 mg./l. CO_2 at 20°, brucite [$Mg(OH)_2$] is stable and artinite starts to ppt. at higher CO_2 concns. The partial pressure of CO_2 above these equil. solns. is 1/5 of its pressure in the air, which excludes the formation of brucite

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KAZAKOV, A.V.; TIKHOMIROVA, M.M.; PLOTNIKOVA, V.I.

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from open water basins. When air was blown through $Mg(OH)_2$ suspensions, hydromagnesite of the compn. $Mg_4(CO_3)_3(OH)_2.4H_2O$ was formed. In the field of medium CO_2 concn. (270-1900 mg./l. CO_2) nesquehonite and basic Mg carbonate are present in the solid phases. Effect of addn. of such sea water components as $MgSO_4$, NaCl, and $Ca(HCO_3)_2$ is studied. Nesquehonite and calcite were formed as solid phases. In the 60° isotherm, expts. at 250-6610 mg./l. CO_2 concns. gave mainly hydromagnesite. In one experiment air was blown through a [illegible] contg. 270 mg./l. [illegible] and [illegible] mg./l. CO_2 at pH 8 and 8.43 for 56 [illegible] the ppt. contained magnesite rhombohedrons (3-10 μ), and hydromagnesite-like scaly mineral. K. assumes that this expt. represents the lower limit of the magnesite field of the 60° isotherm. In the 150° isotherm, expts. were conducted in ampuls with use of a thermostat. In the closed $MgO-CO_2-H_2O$ system at concns. of 548-2528 mg./l. CO_2 up to 85% of the solids formed were magnesite. Unstable nesquehonite was also formed. In the dolomite system at 60°, the effect of NaCl is found insignificant. No magnesite or dolomite could be obtained. The solid phase consisted of calcite and nesquehonite. A partly open system $CaO-MgO-CO_2-H_2O$ at 60° produced calcite and an unidentifiable mineral at 390 and 310 mg./l. CO_2 concn. The same closed system with less CaO, and at 150° gave magnesite in 14-30 hrs. Increased amt. of CaO in this system produced dolomite in 90 hrs. K. compares the compn. of his magnesite-forming solns. with the compn. of the waters of lakes where magnesite or dolomite ppts. have been dis-

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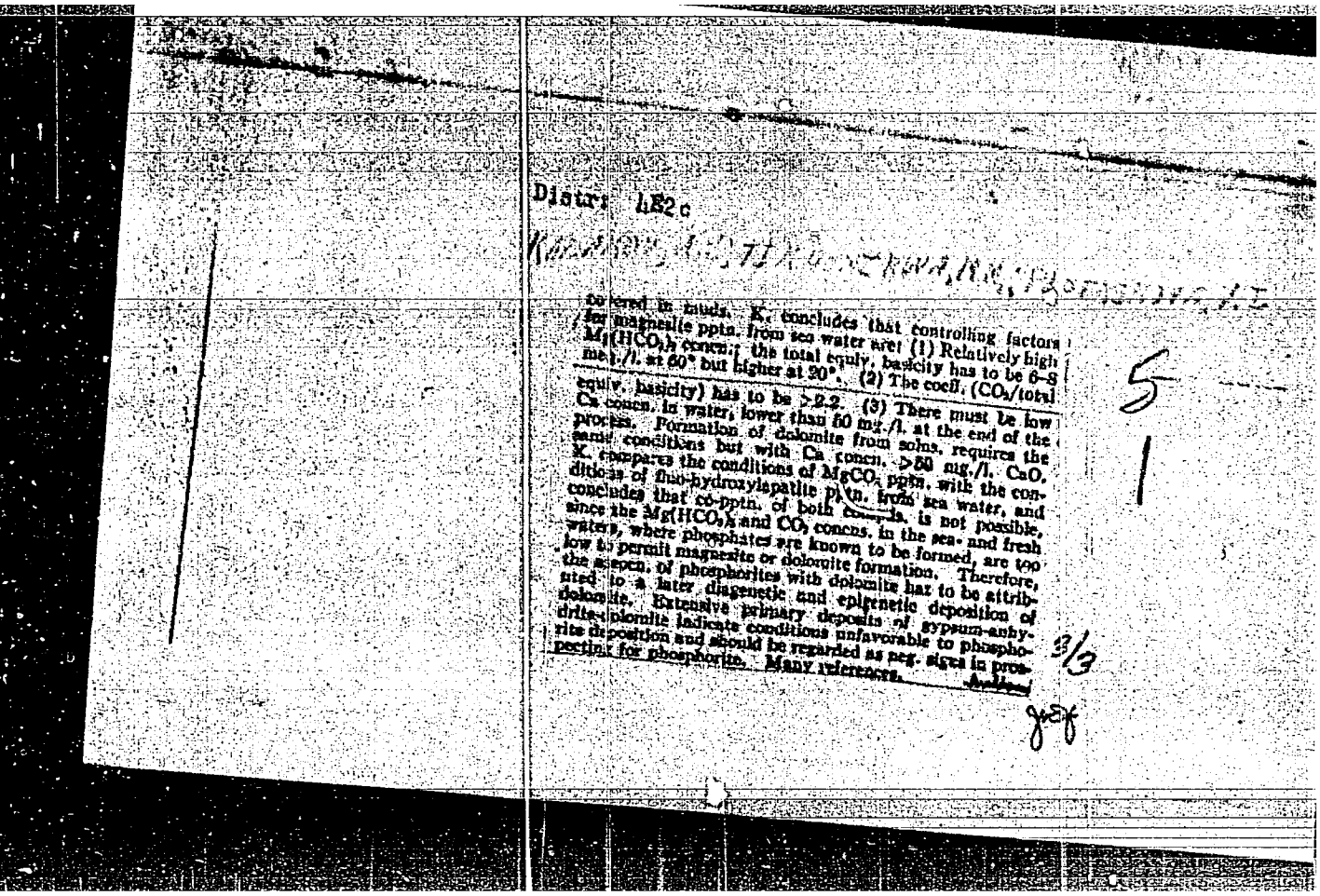

Distr: 4E2c

be used in muds. K. concludes that controlling factors for magnesite ppts. from sea water are: (1) Relatively high $Mg(HCO_3)_2$ concn.; the total equiv. basicity has to be 6-8 meq./l. at 60° but higher at 20°. (2) The coeff. (CO_2/total equiv. basicity) has to be >2.2. (3) There must be low Ca concn. in water, lower than 60 mg./l. at the end of the process. Formation of dolomite from solns. requires the same conditions but with Ca concn. >80 mg./l. CaO. K. compares the conditions of $MgCO_3$ ppts. with the conditions of fluo-hydroxylapatite ppts. from sea water, and concludes that co-ppts. of both compds. is not possible, since the $Mg(HCO_3)_2$ and CO_2 concns. in the sea- and fresh waters, where phosphates are known to be formed, are too low to permit magnesite or dolomite formation. Therefore, the assocn. of phosphorites with dolomite has to be attributed to a later diagenetic and epigenetic deposition of dolomite. Extensive primary deposits of gypsum-anhydrite-dolomite indicate conditions unfavorable to phosphorite deposition and should be regarded as neg. signs in prospecting for phosphorite. Many references. Author

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Distr: 4E4j

Equilibrium systems of the basic and simple oxides of iron in chloride and sulfate salt solutions. A. V. Kazakov, E. I. Sokolova, and A. Z. Vainshtein. *Trudy Inst. Geol. Nauk, Akad. Nauk S.S.S.R.*, No. 152, *Geol. Ser.* No. 64, 73-92 (1957).—A literature review on limonite, goethite, and hydrohematite is given, and goethite and lepidocrocite are described. The systems $FeCl_3$-KOH-H_2O and $Fe_2(SO_4)_3$-KOH-H_2O at 20° are studied. Analyses (20) of liquid and solid phases in the pure chloride system and 12 analyses of the same system with sea water and 34 analyses of the sulfate system phases are given. *D*-spacing data of the solid phases and graphs indicating pH conditions during the pptns. are included. The soly. of goethite and lepidocrocite is studied. Many references. A. Volborth

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KAZAKOV, A.V.

Glauconite. Trudy Inst. geol. nauk no.152:93-142 '57. (MLRA 10:9)
(Glauconite)

KAZAKOV, A. V.

Distr: 4E2c

Granulometric analysis of sedimentary rocks based on quartz. A. V. Kazakov. *Trudy Inst. Geol. Nauk, Akad. Nauk S.S.S.R.*, No. 152, *Geol. Ser.* No. 64, 143-62(1957).—Techniques of granulometric analysis of insol. compds. of sedimentary rocks are described. A. Volborth

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NOVIKOV, A.S., kand.khim.nauk; KALUZHENINA, K.F., kand.tekhn.nauk; GILINSKAYA, N.S.; KAZAKOV, A.V.; Prinimala uchastiye ARKHANGEL'SKAYA, M.I.

Production of heat-resistant rubbers based on butadiene-nitrile polymers. Trudy NIIRP no. 7:25-33 '60. (MIRA 14:1)
(Resins, Synthetic)

GAMBURG, D.Yu.; KAZAKOV, A.V.; LELYAKINA, T.M.; BELUGINA, L.N.; VESELOVSKIY, K.B.

Investigating the carbon black obtained in the electric cracking of natural gas prior to the formation of acetylene. Kauch.i rez. 21 no.12:22-24 D '62. (MIRA 16:1)

1. Gosudarstvennyy nauchno-issledovatel'skiy proyektnyy institut azotnoy promyshlennosti i produktov organicheskogo sinteza i Nauchno-issledovatel'skiy institut rezinovoy promyshlennosti.

(Carbon black) (Gas, Natural)

KAZAKOV, A.V.

Automation of the titration process. Trudy MIKHM 25:256-267 '63. (MIRA 17:6)

KAZAKOV, B.A. (Rostov-na-Donu)

Garpike in the Don River. Priroda 50 no.11:117 N '61.
(MIRA 14:10)
(Don River--Garpikes)

KAZAKOV, B.A., uzhitel'

Work of students in the conservation of nature. Biol. v shkole no.2:59-60 Mr-Ap '62. (MIRA 15:2)

1. Srednaya shkola No.2 g. Gus'-Khrustal'nyy Vladimirskoy oblasti.
(Wild life, Conservation of)

KAZAKOV, B. A.

"A Case of Afebrile Sinus Thrombosis," Vest. oto-rino-laringol., No.2, 1948

KAZAKOV, B. A.

"Case of Extracting Foreign Body Wedged in the Esophagus and Causing an Esophageal Abscess," Vest. oto-rino-laringol., No.4, 1948

Otorhinolaryngological Dept., Kirov Obl. Hosp.

KAZAKOV, B. A.

"Acute Suppurative Inflannation of the Middle Ear with Sequestration of the Labyrinth and innundated with Suppurative Meningitis", Journal of Oto-Rino-Laryngology, Issue 3, 72.

KAZAKOV, B. A.

KAZAKOV, B.A., zaslushennyy vrach RSFSR

Acute suppurative otitis media with swquestration of the labyrinth and with diffuse suppurative meningitis. Vest. oto-rin. 16 no.3: 72 My-Je '54. (MLRA 7:7)

1. Iz oto-laringologicheskogo otdeleniya Pskovskoy oblastnoy bol'nitsy.

(OTITIS MEDIA, complications,
*meningitis & sequestration of labyrinth)
(MENINGITIS, complications,
*otitis media & sequestration of labyrinth)
(LABYRINTH, diseases,
*sequestration in otitis media with meningitis)

КАЗАКОВ В. А.

KAZAKOV, B.A., zasluzhennyy vrach RSFSR (Pskov)

Otogenic sepsis based on material from the otorhinolaryngological section of the Pskov Province Hospital for the period 1949-1955. Vest.oto-rin. 19 no.3:116 My-Je '57. (MIRA 10:10)
(SEPTICEMIA) (EAR--DISEASES)

KAZAKOV, B.A., Zasluzhennyy vrach RSFSR

Contagiousness of Simanovskii-Vincent's angina [with summary in English]. Vest.oto.-rin. 20 no.3:18-19 My-Je '58 (MIRA 11:6)

1. Iz otolaringologicheskogo otdeleniya Pskovskoy oblastnoy bol'nitsy.

(VINCENT'S INFECTION, transm.
contagiosity (Rus))

KAZAKOV, B.A., zasluzhennyy vrach RSFSR (Pskov)

Otogenic abscesses of the brain and cerebellum. Vest.oto.-rin. 20 no.4:104 Jl-Ag '58 (MIRA 11:7)
(BRAIN--ABSCESSES)

KAZAKOV, B.A., zasluzhennyy vrach RSFSR.

Isolated burns of the stomach by caustic chemicals without esophageal lesions. Vest.oto-rin.20 no.5:122-124 S-O '58
(MIRA 11:12)

1. Iz otolaringologicheskogo otdeleniya Pskovskoy oblastnoy bol'nitsy.

(STOMACH, dis.
caustic lesions without esophageal damages (Rus))
(CAUSTICS, inj. eff.
stomach lesions with esophageal damage (Rus))

KAZAKOV, Boris Ignat'yevich; [illegible]YAKOVSKAYA, G.E., red.

[Metals tell their story] Metally rasskazyvaiut o sebe. Magadan, Magadanskoe knizhnoe izd-vo, 1962. [illegible] p.
(MIRA 17:9)

ARUTYUNYAN, R.N.; KAZAKOV, E.M.; KLEYMAN, A.D.

Wells for vacuum water lowering in stratified soils. Osn., fund. i mekh. grun. 7 no.3:12-13 '65. (MIRA 18:6)

KAZAKOV, B.N. Cand. Vet. Sci.

30437 Moscow Vet. Acad.

Modifitsirovannyy polyevoy zhloranalizator. Vyetyerinariya, 1949, No 10, s. 50-52

SO: LETOPIS' No. 34

Translation - "Modified Field Chloring Analyzer"

Antiparasitic effect of the preparation SK-9. B. N. Kazakov. (Vet. Acad., Moscow). *Veterinariya* 27, No. 2, 36–7(1950); *Chem. Zentr.* 1950, II, 1277.—SK-9 is a chlorinated turpentine. It is a dark brown mass of characteristic odor which is sol. in water in all proportions. In concns. of 0.3–2% it does not kill adult lice but only immobilizes them for 15–30 min. A 0.5% soln. is best for spraying swine. The treatment must be repeated in 10–14 days. Increasing the strength of the soln. does not increase the effectiveness. M. G. Moore

KAZAKOVA, M.V.; KAZAKOV, B.N., Cand. of Vet. Sciences
Moscow Veterinary Academy
"Bronchopneumonia of piglets and its treatment."
SO: Vet. 27 (8) 1950, p. 20

KAZAKOV, B. N.; LYUBINOV, V. I. (Vet.)

"Anaphylactic shock in pigs in passive immunization."

SO: Veterinariya 27 (12), 1950, p. 23

KAZAKOV, B.N., Cand. of Vet. Sciences
Moscow Veterinary Academy
"Survival of ticks in pigs treated with the emulsion SK-9."
SO Vet. 28 (5) 1951, p. 44

KAZAKOV, B. N. (Cand in Vet Sci)

USSR/Medicine, Veterinary - Immunization Sep 52

"Anaphylactic Shock in Swine Resulting From Passive Immunization," B. N. Kazakov, Cand in Vet Sci, V. I. Lyubimov, Vet Physician, Moscow Vet Acad

"Veterinariya" Vol XXIX, No 9, p 57

Passive immunization of swine, which have never been immunized before, with 20 cc antierysipelas serum injected subcutaneously behind the right ear, produces anaphylaxis. In order to avoid any reaction, the authors recommend that 1 cc of the serum be administered 1st and a full dose of 20 cc be injected 30 min later.

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KAZAKOV, B.N.(Moskva)

Selection of trained personnel is the most important part of organizational work. Sov.zdrav. 14 no.5:3-7 S-O '55(MLRA 8:12)

1. Nachal'nik Upravleniya kadrov Ministerstva zdravookhraneniya RSFSR.
(PUBLIC HEALTH
in Russia, selection of med.workers)

KAZAKOV, B.N., kandidat veterinarnykh nauk; ZOTOV, V.A., aspirant.

Intramuscular carbon tetrachloride injections in fascioliasis in sheep. Veterinariia 32 no.8:50-52 Ag '55. (MLRA 8:10)

1.Nauterechnaya rayvetlechebnitsa, Groznenskoy oblasti.
(VETERINARY MATERIA MEDICA AND PHARMACY)